DE BOW'S
SOUTHERN AND WESTERN
REVIEW.

ESTABLISHED JANUARY 1, 1846.

AUGUST, 1852.

VOL. XIII., O. S.] ENLARGED SERIES. [VOL. I., No. 2.

ART. I.—THE HISTORY, CONDITION, AND RESOURCES OF CANADA.*

EXTENT OF THE COUNTRY—EARLY HISTORY UNDER THE FRENCH—THE PROVINCE UNDER THE RULE OF THE ENGLISH—CANADA UNDER "RESPONSIBLE GOVERNMENT"—GEOGRAPHICAL DIVISIONS, CLIMATE AND SOIL—ANIMALS AND NATURAL PRODUCTIONS—AMOUNT AND CHARACTER OF THE POPULATION—AGRICULTURE—MANUFACTURES AND SHIPPING—EXPORTS AND IMPORTS—INTERNAL IMPROVEMENTS—REVENUE AND PUBLIC DEBTS—BANKS—EDUCATION, ETC. ETC.

THE British possessions on this continent constitute about one-third of North America: occupying an area of some 2,300,000 square miles, a space two-thirds as large as that covered by the whole of Europe. These territories lie immediately north of the United States, including eastwardly the islands of Newfoundland and Breton on the Atlantic coast, and extending on the west to the possessions of Russia. This immense area is divided into five provinces, Newfoundland, New-Brunswick, Nova Scotia, Canada, and New-Britain; of which Canada, the second in size, is, and probably always will be, the first in importance. It contains about 350,000 square miles, and is bounded on the north by a range of hills, which separates it from the territory of the Hudson's Bay Company; on the east, by Labrador, the Gulf of St. Lawrence and New-Brunswick; on the south, by the United States; and on the west, by Lake Superior, and a line running northwardly from this lake to Hudson's Bay. It may be represented in general terms as lying between the meridians of 57° 50′ and 90° west, and the parallels of 42° and 52° north, and

* 1. A Historical and Descriptive Account of British America, by Hugh Murray, F. R. S. E. 3 vols. Edinburgh. 1839.
2. The Conquest of Canada, by the author of "Hochelaga." 2 vols. Harper & Brothers. New-York. 1850.
3. Rule and Misrule of the English in America, by Judge Halliburton. New-York: Harper & Brothers. 1851.

stretching about 1,300 miles from east to west, and from 300 to 700 from north to south.

Early History under the French.—Five hundred years before Columbus reached the western world, America was discovered by *Biorn Heriolson*, a native of Iceland; and from this time, (1001,) during two centuries, repeated visits were made to its northern coasts by Scandinavian voyagers. Civilized Europe, however, knew not of the discovery. After the expiration of that period, these Scandinavian voyages ceased, and thenceforth North America was visited by no European until the 24th of June, 1497, when John Cabot, an enterprising navigator of Venice, then in the employ of Henry VII. of England, discovered the coast of Labrador. Soon afterwards, in 1500, Gaspar Cortereal, a Portuguese, discovered the Gulf of St. Lawrence; of which Jean Denys, a Frenchman, prepared a map in 1506. France began now to take an interest in the new world; and under the patronage of its king, Francis I., Verazzano, a Florentine, surveyed (1523–24) nearly all the eastern coast of North America. In April, 1534, the same monarch sent out *Jacques Cartier* with a colony to make a settlement in the unexplored west. In July following he entered the Gulf of St. Lawrence; and in the same month formally took possession of the country in the name of the French king. No settlement, however, was then made; yet this was the beginning of the French rule in the province of Canada. In October of the following year, Cartier ascended the St. Lawrence as far as the Indian village of Hochelaga, the site of the present city of Montreal; and here, for the first time, a European heard from the natives of the great lakes and of the mighty Mississippi. The contests of Francis I. with Charles V., of Germany, and the civil wars which desolated France during the latter half of the 16th century, put an effectual stop to all efforts on the part of that kingdom to effect a settlement in Canada, or to prosecute its discoveries in America. But the spirit of enterprise was again revived under the sway of Henry IV.; and again Canada was sought by French adventurers. Trading companies and private individuals, eager for gain, fitted out expeditions for carrying on the fur trade; and this was prosecuted with success. Efforts were now made to establish trading posts; and on the 3d of July, 1608, *Samuel de Champlain*, the lieutenant of Sieur de Monts, arrived at the site of Quebec, where he at once determined to lay the foundation of the French empire in the west. Such was the origin of *New France*, for so the settlement was afterwards designated by its original founders. Twelve years subsequently the Pilgrims made their landing at Plymouth.

The origin of the appellation *Canada* is a subject of dispute. Some derive it from the Spanish "*aca nada*"—*here is nothing;* in which they follow an old Castilian tradition; according to which the Spanish visited the country before the French, and, finding no mines as they had hoped, in their disappointment uttered this exclamation. The natives having caught the sound, repeated it to the next Europeans who arrived; and they took it to be the proper Indian appel-

lation of the country. The derivation is evidently fanciful. Other explanations of the term equally improbable are given by historians. The most likely derivation is that adduced by Charlevoix in his *Histoire de la Nouvelle France*, (vol. I. p. 13, note,) who says: "D' autres dérivent ce nom du mot Iroquois '*Kannata*,' qui se prononce *Cannada*, et signifie *un amas de cabanes*." The word meant, then, in the Indian tongue, *a collection of cabins*, i. e. *a village;* and it is so used in Brandt's translation of Matthew's Gospel into the Mohawk language. The early discoverers hearing the term frequently employed by the natives, naturally thought it the name of the country; though it is not likely that at this early period Canada was distinguished by any general appellation.

After the founding of Quebec, the French applied themselves to extending their knowledge of the country in which they had effected a settlement. The main objects of those who controlled the infant colony were trade with the natives and their conversion to the Christian faith. The cultivation of the earth was not only considered of secondary importance, but was attended to only so far as was necessary to the supply of the immediate wants of the settlers. Nor in these respects did there afterwards take place any material change in the policy and habits of the colony, until it passed, in the following century, from the hands of the French to the rule of the English. From the first, Jesuit missionaries were engaged in propagating the Catholic religion among the Indians of Canada; and they received much aid and sympathy in their undertaking from the pious and charitable of their native land. Alone, or in pairs, agreeably to the directions given by Christ to the Seventy, they traversed the lone wilderness, bearing with them the tidings of salvation. In 1634, two priests of this order made a settlement on the shores of Lake Huron; and, in 1641, others had advanced as far as the falls of St. Mary. Meanwhile, the Jesuit influence had been increasing in Quebec. A college was founded in that city in 1635 by De Rohaut, and placed under their control; and, soon after, an Ursuline convent was established, and a hospital for the sick and poor, both of which were under Catholic direction. In a few years the exercise of any religion but the Catholic was prohibited by law. As early as 1665, a house of worship was erected by father Allonez, near the west end of Lake Superior; and here he preached to the Indians in the Algonquin tongue.

What success these missionaries met with in a religious point of view, cannot be readily determined. It is certain, however, that they acquired great influence among the natives by their prudent and conciliatory conduct; and to this influence are attributable in no small degree, it is thought, the ravages which were made by hostile Indians during the first part of the 18th century upon the people and territory of New-England. The policy of the Jesuits, therefore, was political as well as religious. They were influential, accordingly, in persuading the native tribes to acknowledge the supremacy of the French monarch. In 1671, a large number of chiefs from the sources of the Mississippi, Red River and St. Lawrence, met the deputies of

the king at the Falls of St. Mary, and, by common consent, placed themselves and their people under his protection. Seeking to extend their dominions still farther, the French government commissioned Marquette and Joliet, in 1673, to discover the Mississippi. How they did so, and what adventures they met with in their descent of that river as far as the mouth of the Arkansas, has been often told with eloquent pen. Somewhat later, the French found their way by sea to the mouth of the river; and on this discovery, and the exploration of Marquette, was founded the claim which they subsequently urged to the valleys of the Mississippi and Ohio, and all the territory lying to the northwest of that region.

For nearly one hundred years after the discovery of the Mississippi, there occurred no change of importance either in the political or social affairs of Canada. The Indians, who had been at first annoying, were at length conciliated, and united with the French against the colonists from England. Few immigrants came over from France; whilst those who were already settled in the country were occupied either as missionaries, in hunting, in fishing, or in the cultivation of small feudal farms. From these farms their occupants derived just enough to afford them subsistence. There was little prospect of advantage held out to emigrants from the mother country. The land of the province was granted to subjects by the king upon feudal tenure, as was customary in Europe at the time of the discovery of Canada. Tracts of land of all sizes, from one square mile to one hundred or more, were conferred by the king on private individuals, and these were styled seigniories. The seigniors were bound to concede land to immigrants, on application, on condition that they would pay a small rent and perform certain feudal duties and services. On the tenant's death, his children inherited his land in equal shares, subject to the same conditions; and so, when the seignior, or lord, deceased, his territories descended to his children, one half to the eldest son, while the other half was distributed in equal shares between him and his brothers and sisters. A seigniory might be sold; but the king was entitled to one-fifth of its price, one-third of which, however, was relinquished in case of immediate payment. Besides the lands thus owned, there were others which constituted endowments for the established Catholic Church; and yet these were reserved for state purposes. All the grants of land made in Canada, while it continued a French province, were made upon this uniform plan; and the system was, very unfortunately, maintained among the French population even after the conquest by the British. The influence of this feudal tenure was highly injurious to the prosperity of the colony, for it operated, among the French settlers, as a check upon industry and enterprise. Since that conquest, however, the new lands granted have not been given upon this plan, but a clear title has been made to the purchaser. It has happened, consequently, that the portion of the territory which has been settled since the transferrence of the province to England, has advanced much more rapidly than the other in prosperity and internal improvement. Public opinion has long been opposed to

these feudal tenures; and such as now exist will, no doubt, at an early period, be superseded by titles more in accordance with the progressive ideas of the age.

The Province under the Rule of the English.—From the beginning of the 18th century the French and English colonies in America struggled for pre-eminence in North America, as their parent nations were doing on the battle-fields of Europe. English villages were attacked and destroyed by the Canadians and their allies the Indians, and these acts were retaliated in kind by the English colonists. Mutual invasions were made with various success, until, finally, on the 14th of September, 1759, Quebec was taken by the British under General Wolfe. In September of the following year, the surrender of Montreal completed the subjugation of Canada, and the whole territory was formally ceded to England in 1763, by the treaty of Paris. Such was the end of the French domination in the northern part of North America. During the continuance of her power, France had ruled the province with maternal sway. Her resources and treasures were spent upon the colony, and her best officers were sent out to administer the government. Yet was she unsuccessful in developing the hidden resources of the country; for she had adopted a policy which, though kind and in many respects beneficial, was upon the whole unfitted for drawing out the strength of an infant colony. Military governments were fixed at Montreal, at Three Rivers and at Quebec, upon which, subject to the control of the French minister of marine, devolved the administration, civil as well as military, of the province. A governor and an intendant were the heads of the government. Free admission was granted to colonists from every country; a policy more liberal than that adopted by other European states, which then controlled settlements in America. Commerce, however, was fettered, because it was confined to chartered monopolies. Popular rights, too, were wholly unacknowledged. All power was centred in the government. The state was all, the people nothing; and hence, when the state fell, the people passed without a murmur from the power of France to the control of her hereditary enemy.

From the time of the conquest until 1774, Canada was ruled by an English governor and council, with *English law*, administered solely in the *English language;* but from 1774 to 1791 the province was governed by the same functionaries, administering English *criminal* but French *civil* law. In 1791, owing to troubles experienced in carrying on the government, Canada was divided by the so-called Constitution Act (31st Geo. III., c. 31) into two provinces, Upper and Lower. A similar form of government was established in each, but its administrations differed in some particulars. In the upper province, where the English colonists were most numerous, the new constitution worked well, and was not specially complained of until a comparatively late period in its history. In the lower province, however, where the French settlers were stronger than the English, the new arrangement was a source of disquiet and turmoil from its first institution. The government was composed, according

to the act of parliament, of a governor, and an executive council of eleven members appointed by the crown; a legislative council, consisting of 15 members, (afterwards raised to 40,) also appointed by the crown; and an assembly, or house of commons, composed of 50 members, (subsequently increased to 88,) elected by the people of the province upon the basis of population. At the first meeting of the assembly, (Dec. 17, 1792,) it was found that 35 of its members were French and only 15 English, a minority which was at a later period reduced to *three*. Of course, French influence was predominant in the assembly. The other two estates, however, were thoroughly English. Hence arose, almost from the outset, a most violent contention between the different branches of the legislature, the council striving to retain the power with which it had been vested by parliament, and the assembly straining every nerve to circumscribe the privileges of the council and governor, and make itself independent of their control. It would be tedious to trace the progress of this struggle from its commencement to the catastrophe in 1837, when Lower Canada broke out into rebellion. Suffice it to say, that the assembly obtained by degrees some of the powers which had been granted to the other estates of the government, and from time to time had its demands for increased privileges complied with by the mother country, and always with apparent readiness and liberality. Finally, however, tired of concession, the home government refused to yield any further to the increasingly clamorous, and, in some respects, unreasonable demands of the assembly. To have yielded would have been in effect to have surrendered the whole government of the province; a step which England was not prepared to take, and which, considering the limited education of the French Canadians, and their general want of preparation for self-government, and considering also the equitable rights of the English colonists who (or their ancestors) had settled in the province under the distinct assurance of being ruled *according to the laws of England*—would not, all things taken into account, have been either prudent or just. The assembly refusing, during several years, to make appropriation for administering the government, and persisting to do so after repeated remonstrances from the mother country, the English parliament passed resolutions providing for the current civil expenses independent of and contrary to the action of that branch of the provincial legislature. Rebellion followed; but in a short time it was put down by military force, the power of England triumphing in the contest.

There can be no question that England, when matters had reached the crisis just noticed, followed the only course which could have preserved her dominion over Lower Canada; yet it is equally certain that all the troubles which for so many years agitated that province, were due to the unwise act passed by the British parliament of 1791, by which a representative assembly was established. The act was unwise in the first place, because, if the province was to be preserved as a British possession, it should have been ruled by English laws and in the English language, in order that the French and English inhabitants might, in time, have become a united and homogeneous

people. The consequence of the course which was followed was inevitable; the two races by which the colony was inhabited, having no powerful bond of union, were kept by the force of previous prejudices distinct from and hostile to each other, as they are to the present day. It was unwise, furthermore, because it was impossible that an assembly chosen by a people, the great majority of whom were French by descent, by habits and by education, could act for any length of time, or on any important subject, in harmony with a legislative council composed mainly of English settlers and nominated by the crown. It was unwise, finally, because the French Canadians had no experience in the art of self-government, and were at that time, if they are not now, unfitted for so important a trust. "They were, without doubt," says Halliburton, "the most ignorant inhabitants of any portion of America; but few of them could either read or write. They were even unacquainted with the common operations of husbandry, preferring the listless idleness engendered by a fertile soil, that yielded its productions without the aid of art, to the laborious operations of the enterprising Anglo-Saxons. Accustomed to implicit obedience, they saved themselves the trouble of thinking, and yielded their judgment to their leaders and their conscience to their priests. Yet to such a people was entrusted the power not only of making laws, but of governing the English. The experience of all ages was against the experiment." Nor was "the experience of all ages" fallacious in this instance. The French, though ruled with a more than paternal sway, became more and more dissatisfied with the home government, and, as each demand was complied with by the parliament and each alleged grievance redressed, became more and more clamorous for still further concessions. Warned by her experience in the case of the United States, England treated Canada with more mildness than any other colony had up to that time experienced, resigning the right of taxation, (1788,) though compelled to contribute of her own means to the support of the province, and leaving all its internal affairs, commerce excepted, to the regulation of the provincial legislature. Complaints were listened to with respect by the British parliament, and honest efforts made to remove every cause of dissatisfaction, real or imaginary; and it was only when the whole machinery of government was thrown into disorder, and its movements stopped by the provincial assembly, that the parliament interposed to save the country from anarchy and civil war.

The rebellion which had been partially communicated to Upper Canada having been put down with little effort, the British parliament attempted anew the construction of a government. What the Canadians had failed to gain as malcontents, they now gained as rebels reduced to subjection. After various preliminary investigations and discussions, the two provinces of Canada were united in 1841, chiefly through the representations and influence of the viceroy, Lord Durham, into one government, under one legislature. By this *Act of Reunion*, as it is called, important changes were made in the constitution, and a "responsible government" introduced. The governor was deprived of the patronage which had pertained to his office under

the old *regime*, and this patronage was transferred to the leader of the assembly, while the governor's veto was made of little or no effect; the legislative council was made "a mere duplicate of the assembly," and the laws passed by the provincial legislature thus constituted, were subjected no longer, as before, to a rigid examination in England before they received the sanction of the king, but only to a merely nominal surveillance. In a word, the legislature was made independent in all but the name. A government more democratic, in fact, than that of the United States, was established; while that admirable system of checks and balances which regulates our institutions had no counterpart in the new administration.

Canada under "Responsible Government."—Having gained the object for which they had for years been striving, or what was equivalent to it, the French party, which, of course, was predominant, under the working, and according to the provisions of the new constitution, ceased to fill the province with confusion and alarm. And now a singular and yet not an unnatural phenomenon occurred. The English settlers, who had previously been the staunchest loyalists, and had continued steadfast and unshrinking in their adherence to the mother country, began to murmur against the conduct of the home government. They asserted, and not without reason, that they were in effect not represented in the new legislature; for the majority of the French party was too overwhelming to allow of successful resistance, on their part, to any measure which their enemies might please to propose, or to any law they might please to enact. Before, they could appeal to the king or to the parliament; but now, they declared, they had, though nominally free, no voice in managing the affairs of their country, and no means of redress when oppressed by the unjust and one-sided enactments of their political opponents. It was vain to appeal to the governor, for his veto was virtually powerless. To ask redress of the legislative council was equally vain, for it was but an echo of the assembly, and this latter body was under the control of the French representatives. Vain was it, finally, to appeal to the monarch or to parliament, for to such petitions one uniform answer was returned: "You have a responsible government; we cannot interfere. It is a local matter; you must settle it yourselves."

He knows but little of the science of political economy, who supposes that government is established for the good of the majority solely. It is founded for the greatest good, not of the greatest number, but *of all*—the minority as well as the majority. Unquestionably, when in a state it becomes necessary that some of its members should lie under disabilities, it is better, other things being equal, that the minority rather than the majority should suffer. But if the interests of all *can* be secured, and yet only those of the greater number *are* actually regarded, irrespective of the feelings and rights of the minority, then and there, call the state by what name you please, a monarchy or a democracy, you have a despotism. Situated as they were under the new constitution—a helpless minority ruled by an inconsiderate majority—the English residents despaired of ob-

taining a just influence in the management of their country's affairs. Thrown off, as they seemed to be, by the mother country, they looked elsewhere for support. No means of relieving themselves from French control appeared so likely to succeed, as the project which they, though loyalist before the Union, started a few years since, (1849,) and which was then discussed, as it is even now, with not a little feeling, as well by the press of this country as by that of Canada and England. The proposed plan is *the annexation of Canada to the United States.*

Among the Canadians, the idea of annexation to this country arose among, and first found favor with the English settlers; but the proposition is not countenanced by them alone. Their opponents, the French, entertain, it is ascertained, a similar wish, though of course their motives are different. They fear a threatened league of all the British North American provinces, which, if made, would deprive them of their power, and, rather than this, they would have annexation. Thus affairs stand in Canada, unsettled, and, to a strong though not the dominant party in the state, highly unsatisfactory. A change of some sort must come at no very distant day. England, it is probable, cannot, and, if the wishes of some of her statesmen be followed, *will not* long continue to exercise even the small remnant of authority which she has retained over the province. Whenever she withdraws her supervision, Canada will either form a separate and distinct government in North America, or it will become a constituent element of our Union. But, will England surrender her claims without a struggle? If she should do so, can Canada escape civil convulsion, in case she make the attempt to form herself into an independent power? If she should apply for entrance into this already overgrown confederacy, can she be received without endangering the whole framework—the very existence of our government? These, it will be seen, are momentous questions, and upon their correct solution may depend, before many years have passed away, the most momentous consequences.*

Geographical Divisions, Climate and Soil.—The province of Canada is now divided, geographically, into Canada East and Canada West, corresponding respectively to the Upper and Lower Canada of the period preceding the Union. Canada East is comprised between the parallels of 45° and 52° north, and between the meridians 59° 50′ and 80° 06′ west, and contains about 160,000,000 of acres. That part of it which lies east of the river Chaudiere and south of the St. Lawrence, is the least fertile of the whole, much of it being unfit for cultivation. That part, on the other hand, which lies west of the Chaudiere as far as St. Regis, is composed of excellent land, and, bordering as it does on the United States, is improving, and is being

* An interesting article on the subject of Canadian Annexation appeared in this Review, Oct., 1850. It may be consulted with advantage, though the writer does not seem to have written from reliable information respecting the relation of the British to the French party in the lower province previous to the rebellion of 1837, nor to have been correctly informed as to the origin and cause of that melancholy outbreak.

settled more rapidly than any part of the lower province. That large tract, moreover, which is situated northwest of Montreal and east of the Ottawa, (the western boundary of the province,) is said to be even more fertile. The climate of this division is colder than that of the western under the same parallel, the mercury sometimes falling in winter at Quebec to 30° below zero. The winter, beginning in November, lasts five months, during which time the snow is usually four feet deep in the woods. When it does break up, the approach of summer is very rapid, and vegetation, commencing early, advances rapidly to perfection. All kinds of grain come to maturity, though the crops of most are not so abundant as they are in more southern climates. The common fruits are readily raised as high up as Quebec, where, however, cold as the winters are, the thermometer sometimes rises in summer as high as 100° above zero.

Canada West is comprised between the parallels 41° and 49° north, and the meridian 74° and 117° west, and contains about 64,000,000 acres. The true period of the settlement of this province was 1783, at the close of the American war of independence, when a number of British loyalists from this country took refuge here, and had lands assigned them, on highly favorable terms, by the home government. In 1791, it was created, as has been seen, a separate province, at which time it contained, by computation, 10,000 inhabitants. York, now the flourishing city of Toronto, on Lake Ontario, was founded three years afterwards, and made the seat of government, and colonists from Great Britain were encouraged to come into the province and make a settlement. Emigration did not commence on a large scale till 1803, since which time it has continued to flow in without cessation, this division being naturally preferred by Englishmen to Canada East, in which French influence was predominant. In 1811, the province contained 9,623 persons who paid taxes, from which it is estimated that the entire population was then about eighty thousand. The climate is not so cold as in the eastern division, and the province contains both a larger extent of fertile land, as well as tracts more productive. Most of the soil equals the best lands of New-York and Ohio, and some of it is even superior. Near Toronto, 100 bushels of wheat have been raised upon a single acre. It is stated on good authority, that the lands lying between the lakes, of Huron on the one side, and Erie and Ontario on the other, are sufficiently productive to supply all Europe with grain, "besides producing cattle and sheep, hemp and flax, and yielding iron, copper, lead, lime, marl and gypsum; and that they are capable of supporting, by agricultural pursuits alone, at least five millions of additional inhabitants." Of this tract, and of the western district generally, a somewhat enthusiastic writer, speaking after personal examination, remarks: "In no portion of Canada could horticulture, floriculture, and agriculture, be prosecuted with more certainty of success than in it. Peaches, plums, pears, apples, melons, grapes, Indian corn, tobacco, and vegetables of every description, grow in abundance, with a luxuriousness that is truly astonishing; and the day cannot be remote when such obvious advantages will attract attention."

Animals and Natural Productions.—Among wild animals found in Canada may be enumerated the elk, fallow deer, bear, wolf, fox, wild-cat, raccoon, beaver, martin, otter, hare, squirrel, and, in the south, the buffalo and the roebuck. Some of these, however, are being rapidly exterminated by hunters, and by the advance of civilization. Among birds are found wild ducks, geese, and other water-fowls, pigeons, the quail, partridge, turkey, and various kinds of grouse. Fish abound in the rivers and lakes, among which are the sturgeon, salmon and herring.

Canada is covered with forests, among the trees growing in which are firs, pines, the white cedar, maple, birch, ash, bass wood, hickory, cherry, and the oak. Among the smaller plants are found a kind of rice, called *zizania aquatica*, which grows in the swamps, ginseng, various species of wild berries, and the lily, violet, and other flowers. The live oak, which is produced in the southern part of the country, is said to be adapted to ship-building; but not the other kinds of the same tree which are found in Canada. Such trees as are useful for no other purpose supply material to the pot and pearl-ash manufactories. The maple tree (*acer saccharinum*) is abundant, and yields an excellent sugar, of which large quantities are yearly raised in the province. The sugar is obtained by inserting a small cane shoot into an incision, made by an axe or with an auger, in the bark of the tree, in the spring, when the sap is rising; along which tube the sap is conducted, and from which it falls into a wooden trough placed beneath. The tree continues to flow about a month. The sap is boiled twice, during the last process being carefully skimmed and cleared from whatever impurities may rise to the surface. It is then left to cool, by which means it is formed into hard cakes, ready for use or for the market. The amount of maple sugar manufactured in Canada West in 1848, is stated to have been 4,160,667 lbs., or about six pounds to every inhabitant. Valued at the average market price, this year's production was worth more than $200,000.

Amount and Character of the Population.—Previous to the year 1760, all those who emigrated to Canada were of French origin, and they came principally from Normandy. In 1676, Canada East contained about 8,000 inhabitants; in 1700, 15,000; in 1714, 26,904; and in 1760, the year above mentioned, when the French immigration ceased, about 65,000. The census of 1784 gave 113,000; of 1825, 423,630; of 1831, 511,917; of 1844, 699,806; of 1848, 768,344, an increase in twenty-three years of 334,704; at which rate the population would be doubled in thirty years. The greater part of this increase was due to births alone, for there has been comparatively little immigration into this division of the province since the control of the country passed from the hands of France. In 1787, a number of English loyalists came in from the United States; and, at a subsequent period, there took place still further emigration from this country, particularly from Vermont. It is by these men that the resources of Canada East have been chiefly developed: they possess the best cultivated farms in the district, are owners of at least half of the more valuable seigniories, and are the main conductors of the retail

trade, and of the internal and foreign commerce. The other, and much the larger portion of the inhabitants, are of French descent, and retain the habits and modes of thought of their ancestors. Neither the conquest, nor the time which has since elapsed, nor the example of their more enterprising fellow-citizens, has wrought any essential change in their character. They are, as a people, frugal, honest, industrious, and hospitable; cheerful in temperament, social and polite in their manners, but uneducated, tenacious of old customs, and unprogressive. There are but few of them who are wholly dependent on wages for their support; the most own small farms upon which they labor with the same kind of implements used by their ancestors a century ago. Only a few families own any large amount of property, and even then it is not very valuable. Yet the people live happy and contented, neither wanting nor abounding. Their religion is the Catholic, and the education which they receive is acquired under the direction of Catholics, the clergy among whom are supported by endowments and tithes granted before the conquest, and guaranteed by express stipulation in the treaty then made between England and France.

In 1845, according to the census then taken, the Church of Rome included within its pale 571,714 of the population; the Episcopalians had 43,274; the Scotch Presbyterians, 26,725; other Presbyterians, 5,231; the Methodists, 15,853; the Baptists, 4,067.

The time of the settlement of Canada West, and its population in 1811, have already been mentioned. The number of inhabitants which it contained, in 1825, was 158,027; in 1835, 336,000; in 1848, 723,292, an increase in twenty-three years of 565,265, the population doubling itself once in about eleven years. Of this population 166,340 belonged to the Church of England; 119,810 to that of Rome; 148,182 were Scotch or other Presbyterians; 137,752 Methodists; 28,053 Baptists; 7,186 Lutherans; and 115,969 belonged to no denomination. One seventh of the ungranted lands in this district have been set apart for religious purposes, and are called "Clergy Reserves." The income thus arising is apportioned to the Church of England two-fifths; to the Church of Rome, that of Scotland and the Wesleyan Methodists, each one-fifth. Other sects are supported by their congregations, as the Church of England is in Canada East. Thus the joint population of the two districts amounted in 1848 to 1,491,626, or in round numbers, *one and a half millions;* of whom 600,000 are descendants of the French; 550,000 come from Great Britain; 250,000 from Ireland; 60,000 from the United States; and 40,000 from the Continent of Europe. If the relative rates of the increase of population in the two districts have continued unchanged up to the present time, Canada West has now a population of 859,000; Canada East of 840,000, making a total of 1,699,000. From this it would seem that the western province is now ahead of the eastern. At the same rate of increase, Canada West will contain, in 1862, 1,259,000; while Canada East will contain only 1,015,000. Indeed, taking into account the continued increase of immigration into the western province, it is highly probable that in

the year 1862 it will have one million and a half of inhabitants, or about one-third more than Canada East.

Comparing the increase of the population in the two provinces of Canada during ten years with that of Great Britain and that of the United States, we have in Great Britain (1831–41) an increase of 1·11 per cent.; in the United States (1830–40) 3·26 per cent.; in Canada East (1834–44) 3·18 per cent.; in Canada West (1832–42) 8·61 per cent. The proportion of deaf and dumb among the inhabitants of Canada is about as *one* to 957, which is higher than anywhere else in the world where censuses have been taken, except in Switzerland and Baden. If we count lunatics and idiots, the proportion afflicted in this way added to those suffering under the other calamities just mentioned, is *one* in 370 against one in 533 in the United States. The causes of this phenomenon have not yet been discovered. The ratio of females to males in the two provinces is 88 to one hundred. The number of paupers in Canada East was, in 1831, *one* in 399; in 1844, one in 151—a strange and alarming increase. In Canada West there is only *one* pauper to every 1,469 inhabitants, against *one* to 318 in New-York in 1835. The number of colored persons settled in the province of Canada East up to 1845, only reached 261, of whom 140 were males and 120 females. Since that time, especially within the last two or three years, there has been a considerable augmentation of this class from the United States.

Agriculture.—In 1845, the amount of soil occupied in Canada was 7,540,450 acres; of which 3,083,949 were under cultivation. The amount of land surveyed in the eastern province up to 1845, was 17,685,942 acres, of which 3,928,100 were unappropriated; in the western, up to 1848, the amount surveyed was 15,902,006 acres, of which 1,597,123 were unappropriated. Vast quantities in both provinces are yet unsurveyed. The average price of this public domain was, in 1840, 11s. 2d. per acre for crown lands; 12s. 8d. for clergy reserves; and 12s. 6d. for school lands. The cultivated land is for the most part divided into small farms, which, where the feudal tenure does not operate, are almost always owned by those who reside on them; by whom, assisted sometimes by hired laborers, they are tilled. The condition, therefore, of the mass of the people is one of happiness and contentment. If great wealth is rarely concentrated upon a single individual, poverty, on the other hand, is but little known. The agriculturists are becoming every year more prosperous; and though they may not accumulate rapidly, they do it surely.

The amount of agricultural and other kinds of property assessed in Canada West in 1825, was £2,256,874; in the year 1848 it had reached £8,567,001. During the same time, the number of acres under cultivation had increased from 535,212 to 2,673,820; of houses, from 8,876 to 42,957; and of horses, oxen, milch cows, and young cattle together, from 121,206 to 481,417. Thus, we perceive, Canada West, seventy years after its settlement, had 3¾ acres of ground under cultivation for every unit of its population; whereas New-York, it would seem, had, in 1835, two hundred and twenty-one years after

its settlement, only 4½ acres to every unit of its population. The number of neat cattle and horses, possessed in 1848, was equal to one head for every one and three quarters of the population; or if we take another estimate of their number, which puts them down as 717,234 instead of 481,417, the ratio is very nearly as one to one; while New-York, in the same particular only possesses one head to every unit of her population. The estimate made of the crop of Canada West for 1847, was, of *wheat*, 7,558,773 bushels; *barley*, 515,727; *oats*, 7,055,730; *rye*, 446,293; *maize*, 1,137,555; *buckwheat*, 432,573; *peas*, 1,753,846; *potatoes*, 4,751,331; the value of the whole of which was supposed to be about £2,676,285 currency. Taking the per centage, the quantity of each of these articles per inhabitant was, of *wheat*, 10·45 bushels; *barley*, 0·71; *oats*, 9·75; *rye*, 0·62; *buckwheat*, 0·60; *maize*, 1·57; *potatoes*, 6·57; *peas*, 2·52. To oppose to this, we have in the United States for the same year, the following per centage: *wheat*, 5·50; *barley*, 0·28; *oats*, 8·09; *rye*, 1·42; *buckwheat*, 0·56; *maize*, 26·01; *potatoes*, 4·86. This estimate shows that Canada West raised in 1847 as much again of *wheat* as we did, in the ratio of population. She even outstripped our best wheat-producing states; for, in the same year, New-York raised only *five* bushels to each person: Virginia *ten;* Pennsylvania *seven;* Indiana *eight;* Ohio *ten;* while Canada West raised *ten and a half.* During the year 1848, there were produced in the province 2,339,756 lbs. of *wool*, an increase within six years of more than 50 per cent.; of *tobacco*, 1,865 lbs.; *flax*, 41,599; *beef and pork*, 99,251 barrels.

The statistics of Canada East are not so full nor so reliable as those of its sister province. In 1844, its whole produce in bushels amounted to 21,325,596, which is equal to 30 bushels for each unit of the population, a ratio about one-fourth less than that of Canada West for 1842. Taking into account the fact that the most of those who engage in the lumber trade are found in the lower province, and the additional fact that it contains the two largest cities in Canada, the disproportion between its agricultural products and those of the upper province is not so great as might have been expected. In 1831, there were raised here 3,404,756 bushels of wheat; in 1844, only 942,835, owing to the devastations of the wheat-fly which occurred at this period. Since that time, partly owing to the introduction of new seed-wheat, and partly from other causes, the crop has very materially increased. The produce of 1843 was, *wheat*, 914,909 bushels; *barley*, 1,221,710; *rye*, 310,458; *oats*, 6,668,933; *peas*, 1,428,303; *maize*, 143,947; *buckwheat*, 375,744; *potatoes*, 9,914,639; *total*, 21,365,913 bushels.

Manufactures and Shipping.—The statistics of manufactures in Canada are very imperfect, and are worthy of little reliance. There were in the country in 1848, 661 fulling and carding mills; 130 breweries; 174 distilleries; 389 tanneries; 1,740 asheries; 10 paper mills; 19 trip hammers; 14 oil mills; 9 nail factories; besides other less important factories and mills. There were produced in the same year, by factories in Canada West alone, 624,971 yards of fulled

cloth; 71,715 of linen; and 1,295,172 of flannel. In 1846, the value of the various kinds of factories situated within the Home District and city of Toronto, in Canada West, was estimated at $1,613,875.

In shipping also, Canada is advancing. The lower province had in 1844 a tonnage of 55,448; of which 45,351 belonged to Quebec, and 10,097 to Montreal. The number of vessels employed was 569, worked by 3,146 men. The upper province had in 1838, 4,505 tons; in 1840, 8,630 tons. The shipping owned on Lake Ontario, and employed on the inland waters of Canada in 1845, was valued at $3,090,000. Steamers now go from Chicago, down the St. Lawrence to the ocean, without breaking bulk.

Exports and Imports.—The prosperity of Canada is shown by the constant increase of its trade. In 1840, the exports amounted to $1,475,000; in 1850, $13,290,000. In 1838, the exports were valued at £2,612,851 currency, (four dollars to the pound,) of which £772,432 came to the United States; the imports for the same year by sea alone, at £2,107,264. In 1850, the exports were valued at £2,990,428, of which £1,237,789 were for the United States. Classified, the articles exported were: *produce of the mines*, £9,145; *fisheries*, £36,512; *lumber*, £1,360,734; *vegetable food*, £1,046,034; *other agricultural produce*, £13,439; *manufactures*, £6,676; *shipping*, sold abroad, £320,430. The imports during the same year amounted to £4,245,517; the duties paid on which were £615,645.*

The trade between the United States and Canada is becoming increasingly important. In 1840, our exports from that province were estimated at $162,741; our imports thither at $398,356. In 1850, the exports reached $5,813,000; the imports, $7,404,000. Of this excess of imports over exports the greater part consists of "foreign merchandise," goods intended for foreign markets which pass through the canals of the United States in preference to passing out by the river St. Lawreuce. In 1840, the value of imports of lumber, animal and vegetable food, was $28,507; in 1849, $2,561,416; an increase in ten years of $2,532,907. In 1840, the value of our exports of the same articles was $204, 683; in 1849, $445,344; an increase of $320,661. From this it will be seen, that while both imports and exports have increased, our exports from Canada, in 1840, were nearly eight times greater than our imports thence; but that ten years later, in spite of our higher duties, our imports were nearly six times greater than our exports. In 1847, there were imported into Canada 27,137,234 lbs. of sugar and molasses, about 18¼ lbs. to each person; of coffee, in 1848, there were imported 11 oz. per head; of tea, 2 lbs. 4 oz. to each inhabitant. In the United States, in 1848, coffee was imported to the amount of 6½ oz. a head; tea, 5 oz. a head. This comparison would seem to indicate that the people of Canada understand the art of living comfortably; rather too comfortably, perhaps, for in 1848 they consumed about two million gallons of wine

* For further information on this, and some of the preceding heads, see an article in De Bow's Review, September, 1848, on "British America."

and other spirits; the greater part of it being whiskey distilled within the province.*

Internal Improvements.—The provincial government has expended liberally of its funds in effecting internal improvements. In 1841, the year of the Union, it appropriated to this object $7,718,335. Previous to this time the legislature had expended, in constructing canals and in improving navigable water courses, $5,520,550; making in all up to 1841, $13,238,885. Since that time other liberal grants have been made. The *canals* which have been dug in Canada have proved of immense advantage. The longest and most important of these is that called the *Rideau Canal*, which connects the northern end of Lake Ontario at Kingston, with the Ottawa River at Bytown, a distance of 128 miles. It was constructed in order that vessels might avoid the dangerous rocks and rapids which are found in the St. Lawrence between Lake Ontario and Montreal. The Ottawa, from Bytown to Montreal, on the other hand, is navigable and perfectly safe. This canal is 142 feet long by 33 wide, contains 47 locks, and cost about $5,000,000. Farther west and south we have the *Welland Canal*, which unites the lakes Erie and Ontario, avoiding the Falls of Niagara. Its length is 42 miles; its descent, 330 feet, accomplished by 37 locks; and its cost was nearly $5,000,000. The Canadians have, besides these, the *Chambly Canal* eleven miles long, connecting Lake Champlain with the St. Lawrence near Montreal; the *Grenville Canal*, on the Ottawa, to avoid its rapids; and several short canals on the St. Lawrence, to avoid falls in that river, which measure altogether about 90 miles. By means of these canals, direct navigation has been opened from Lake Michigan down the St. Lawrence to the sea. In 1850 there passed through the canals on the St. Lawrence, 7,166 vessels and steamers, of which 6,827 were British and 339 American, with an aggregate tonnage of 547,322 tons. Through the Welland Canal there passed, the same year, 4,671 vessels and steamers, 2,692 British and 1,799 American, with a tonnage of 587,100.

Public attention has of late been directed in Canada to the making of rail-roads, several of which are being constructed and others are projected. Two or three short roads only have as yet been completed: the Champlain and St. Lawrence, 36 miles long, connecting the St. Lawrence opposite Montreal with the Sorel River at St. John's, and therefore with Lake Champlain; the Lachine, 7 miles; the Atlantic, 12; Saunay and Industry Village, 12; in all 84 miles, in Canada East. In the other province there are two short lines above Bytown on the Ottawa; and another extending from Queenston below to Chippewa, above the Falls of Niagara, used, however, only in summer, and employing only horse-power.

Two very important rail-roads have recently been projected, and a part of each has been constructed. One is called the Atlantic and St.

* The subject of our commercial relations with Canada is well discussed in a late number of this Review, March, 1852; and in the North American Review, for January, 1852.

Lawrence Rail-road. Leaving the south shore of the river, just below Montreal, it is to pass through a part of Canada East, the northeast corner of Vermont, New-Hampshire, north of the White Hills, and through Maine to Portland. The Montreal end is finished and in use as far as Skipton, a distance of about 80 miles; at which place it is expected it will be joined by a rail-road from Quebec. On the other end, some ninety miles are finished and in operation, from Portland to Gorham, in New-Hampshire. The other proposed road, called the Great Western, will be about 230 miles long, extending from Niagara Falls westwardly, at some point 40 or 50 miles north of Lake Erie, through some of the most fertile land in America, as far as Windsor, opposite Detroit, in Michigan; where it will connect with a line passing through Michigan to the Far West. At its eastern end it will connect with the line leading from Buffalo to the Hudson River, and thence, by separate routes, to New-York and New-England. Thus, when this road is completed, a traveler will be enabled to go by rail-road from Portland, Maine, to the Mississippi.*

Revenue and Public Debt.—The revenue of the province for 1842, the year after the Union, was £365,505; in 1847, £506,826. The customs during the first mentioned period amounted to £265,386; during the last, to £381,063. The impost of one per ct. on the circulation of notes of chartered banks rose from £10,277 in 1842, to £16,006 in 1847. The net revenue derived from the canals, in 1842, was £16,369; in 1847, it had risen to £42,557. The gross revenue from this source for the latter year, was £83,335; the unusual amount of £31,307 having been spent this year in making repairs. The gross revenue of the canals from 1842 to 1847, inclusive, was, respectively, £24,232; £34,604; £44,429; £41,039; £61,486; £83,335; an increase in six years of 240 per cent. The tolls of the State of New-York, during the six years preceding 1842, increased only 36 per cent. The interest on the whole public debt of Canada was, in 1847, £148,264; 42 per cent. of which would, it is computed, be paid by the proceeds of the public works. The expenditures of the government reach about $3,000,000 annually. The taxes for the same time amounted, a few years since, to £429,044; about 5s. 8d. per head. They are comprised in the following items: customs, excise, light-house, and tonnage duties, bank imposts, militia commissions, and various fines and forfeitures.

Banks.—There are eight banks in operation in Canada, the most important of which, that of Montreal, had a capital of £750,000 in May, 1851; the smallest, the Gore Bank, a capital of £80,000. Between these there are the Bank of British North America, £640,000; Commercial Bank, M. D., £411,300; Bank of Upper Canada, £381,192; City Bank of Montreal, £221,793; Quebec Bank, £100,000; and Banque du Peuple, £200,000. Their combined capital, in May, 1851, was £2,784,285. Their circulation at the same time was £1,623,435; coin, £413,420; deposits, £1,691,630; loans,

* See a good article on the "Condition and Prospects of Canada," in the North American Review, for April, 1852.

£5,574,280. There was an increase within twelve months of capital, £8,405; circulation, £313,503; specie, £29,289; deposits, £167,369; loans, £1,199,382.

Education.—The future of Canada, especially of the western province, is promising with respect to education. A system of instruction for the whole people has been adopted, which gives indication of the most useful results. As yet, however, its successful working is confined to Canada West. As long ago as 40 years, the legislature of Canada West made an appropriation for common schools; and this was renewed annually till 1841. These grants, however, were expended to little advantage. In 1841, a provincial statute was enacted, granting money to each county for the support of common schools, provided that the county would raise, for the same object, an equal amount by taxation. This statute has several times since been altered and improved; and in 1850, all the provisions of former laws respecting education, which had been found to work well, and others which seemed necessary, were united into one statute by the legislature. The sum of £25,000 ($100,000) was set apart as an annual donation by that body to the school fund. This fund is apportioned annually by the chief superintendent among the townships of the province, according to the population of each. The local superintendents distribute these apportionments among the several sections of each township, according to the average attendance of scholars. Each section is obliged by law to raise a sum at least as large as that received from the treasury. Every section appoints three trustees over its public schools; and each county council appoints a local superintendent for the county, or for one or more townships, a superintendent having the charge of no more than 100 schools. These trustees and the local superintendents constitute the county board of public instruction. It is the business of this board to examine candidates for the office of teacher. The local superintendents are required to visit, at stated intervals, all the schools under their charge; and clergymen, recognized as such by law, members of the legislature, and all magistrates, are also authorized to make visits to them, and to inquire into their condition. Provision is made for libraries by the county and township councils. At the head of the whole system are placed a chief superintendent and a council of public instruction. The duties of the chief superintendent are substantially the same as with us. The council has the management of the provincial, normal, and model schools; prescribes to them rules and regulations; examines and classifies teachers; recommends text-books; and has entrusted to it the establishment and care of the school libraries. The schools are said to be managed with a view to the best interests of the state and of society, apart from all political party advantage.

The number of schools in Canada West, in 1851, was 3,059, with 151,891 pupils. Massachusetts had, in 1849, when it contained 150,000 inhabitants more than Canada West has now, 3,749 public schools, with 200,000 scholars. This comparison is very favorable to our Canadian neighbor. A normal and model school was established

last year at Toronto. It is designed to accommodate 200 teachers in training in the normal, and 600 pupils in the model school. The legislature has granted £15,000 ($60,000) to carry the measure into execution. Similar liberality has been shown, we believe, by no legislature on this side of the Atlantic.

Such are the educational prospects of Canada; and such as we have previously described, are the indications of her approaching commercial, manufacturing, and agricultural prosperity. A glorious, and, what is better, a happy destiny, may yet await her in the future.

ART. II.—FREE BANKING.

PART II.

Let no one imagine that the specie-convertibility of paper money is a subject which needs no discussion. The crudest notions still prevail on this topic, and ideas are now boldly announced, which we have heretofore considered obsolete and absurd. With all the admonitions of the past, we soon forget its lessons.

The specie payment of paper money has been placed by us at the very head of the requisites for sound banking. And yet we constantly hear of projects of new systems dispensing with this, and making other tests of security for paper money. Perhaps an inconvertible paper might be sustained without any great public detriment, if ours were a nation without any foreign commerce. Then such notes would act as mere signs of value. But such a currency could have no existence beyond our own limits.

Its effect would be to degrade the precious metals to such an extent, that they would seek other and more profitable fields of employment. Our commerce would then, instead of being borne along in the plain old roads it had formerly frequented, be suspended aloft, in the language of Adam Smith, by the "Dædalian wings of a paper currency."

The circulating medium of a commercial community must be one which will also circulate in other communities, or can be converted into such medium without material loss. The difference of currencies should not be represented by much more than the expense and risk of transporting the specie itself. Every item beyond that, is a needless tax on the labor and capital of the community, and is stealthily but surely draining away the productive power of the nation. The circulating medium must not merely pass in the receipts and payments of the individuals of the same society and state; it must be something which has a value abroad, as well as at home, which will satisfy both foreign and domestic debts.

Gold and silver alone fulfil this duty. They alone are, therefore, money, and whatever else purports to represent them must be convertible into them at will. So long as bank paper retains this quality, it is a substitute for money; strip it of this attribute, and

nothing can restore its character. No sufficiency of assets—no unbounded fields of land—no solidity of stocks—no confidence in ultimate solvency, has ever enabled banks to keep their paper, equal to gold and silver, any longer than they paid their notes in specie on demand.

We are strangely unmindful of the past, when we conceive of any thing but a convertible paper as sufficient for the circulating medium of the community. Not even the Bank of England, with all her wealth, was enabled to maintain her notes at par, when the suspension of 1797 took place. Notwithstanding that that institution enjoyed the entire confidence of the community, that it was rich and powerful, and was the great government agent in the collection and distribution of its immense revenues; yet, in 1801, her bills were at a discount of seven per cent. And, although a resolution was passed by the House of Commons in 1811, declaring that "The promissory notes of the Bank of England had hitherto been, and were then held to be, in public estimation, equal to the legal coin of the realm," still, in spite of all this, those notes depreciated ten, then twenty, and finally twenty-five per cent.

How any one can, in the face of such facts, advocate a system having any other basis of circulation than gold and silver, seems almost incredible. And yet, at this very moment, one of our ablest journals is filled with essays favoring real estate banks, and deriding the specie-paying currency as unworthy the progressive spirit of the age.* The spirit of John Law appears to be revisiting us. To him belongs the credit of the conception of making the property and real estate of the nation the basis of paper money and the measure of its issue. With what effect, history can best answer.

"Banks," said Mr. Webster, "are the props of national wealth and industry, not the foundations of them. They are useful to the state in their proper place and sphere, but they are not sources of national income. The fountains of revenue must be sunk deeper. The credit and circulation of bank paper are the effects rather than th e causes of a profitable commerce, and a well-ordered system of finance. Whoever shall attempt to restore the fallen credit of this country by the creation of new banks, merely that they may create new paper, and that government may have a chance of borrowing where it has not borrowed before, will find himself miserably deceived."

Would that every delegate to the Constitutional Convention of Louisiana might weigh well these words of wisdom!

But, paper money is not merely to be restricted, by being convertible to gold and silver.

It is not enough to secure your circulation, but you must confine its issue by some known and steady standard. It is plain that the money value of commodities will be materially affected, if the currency were suddenly expanded one-third or one-fourth more than its

* Hunt's Merchants' Magazine.

former amount. A derangement of relative prices will at once occur; goods already imported will become dear, and high prices as speedily check exports and encourage imports. It is true, that the regular and unerring laws of nature—which, after all, overrule all the minor machinery of the world of commerce—would, in time, check this sudden inflation of prices; but the mischief will have then been committed, and escape will be impossible. Prosperity in its full tide always carries us beyond the point of reason and discretion. It is only when the ebbing wave forewarns us, that we are convinced of the futility of our plans, and with equal heedlessness we are wont to fly from the impending calamity.

It is not enough, then, to make paper money convertible into specie. But the whole currency must vary in amount and value, exactly as a metallic currency would, were the paper withdrawn, and coins substituted in its stead.

In the very year just past, we witnessed the evil of such expansion. An inflated circulation prevailed in all the northern and western banks; under its exhilarating influence speculation ran rife, and prices advanced. Suddenly the reaction took place, prices tottered, and the panic-stricken banks commenced curtailing their discounts and contracting their issues—thus defeating one of the great purposes of their creation, viz: the assistance of individual enterprise and labor, when distrust and suspicion diverted from them the floating capital of the country. That such a system has in it inherent evil, we believe no one can deny. Such an alternation of expansion, during times of prosperity, and contraction during the consequent period of depression and recoil, has been well likened in its effect to an intermittent fever. The patient public now suffering from a hot and anon from a cold fit, realizes, though faintly, the punishment allotted to the damned by the poet,—

> "And feel by turns the bitter change
> Of fierce extremes—extremes by *change* more fierce,
> From beds of raging fire, to starve in ice
> Their soft ethereal warmth."

To guard against such extremes in the circulation of the Bank of England, Sir Robert Peel proposed, and carried through the act of 1844, which regulates the issues of that institution by the influx and outflow of bullion.

It has frequently been urged, that an increase of currency has a quickening influence on the industry of a country.

This doctrine, first enunciated by Mr. Hume, has received such complete refutation at the hands of Adam Smith and Mills, as to render superfluous any remarks on it here. We only mention it, that those who now lean towards it, may know that it is an exploded opinion, falsified by the history of every paper money mania which has ever existed.

The next requisite of sound banking is the limitation of its issues to sums not under five or ten dollars. The general wisdom of this

provision is commonly acknowledged, although practised in but few states. In the ordinary working of the banking system, few provisions are more important. Without it, the country will be inevitably deluged with that species of notes, opprobriously termed "Shinplasters." Every item of change will be banished from the minor channels of trade; and in case of suspensions and failures, which, in spite of all precautions, will often occur, the loss will fall most grievously on that class least able to bear it. Let any one travel in the western or northern states, and our remarks will be strongly confirmed by his experience of the every-day currency which meets him at the hotel, the steamboat, the railway, and the retail shops. Notes of ten dollars are scarcely used in circulation. Specie of every kind is nearly expelled from use. The little which circulates is of a smooth and clipped coin, with three or four per cent. less than it passes for. This species of paper circulation is highly profitable, and all banks endeavor to retain it. Some idea of the profits, made on various denominations of notes, may be formed by the following figures, showing the time and amount of circulation of notes of the Bank of England in the October quarter of 1847.

	Amount.	Average days in circulation.
£ 5	£5,816,000	74·0
10	3,759,000	73·6
20	1,398,000	54·3
100	2,294,000	26·2
1000	2,921,000	7·3

We here see, that at but three per cent. interest, a profit of near £40,000 is made on the £5 notes, whilst on the £20 notes the profit is but £6,000, and on the £1,000 notes but £1,500. And if such is the disparity in profits of her circulation, how immense must it be in the United States, where the use of bills under five dollars almost supersedes the use of specie from what we have called the minor channels of trade. As a general rule, we may look for the prevalence of this circulation, where specie is scarce, and for an abundance of coin, where the issues are not for small amounts.*

Nor is it sufficient to have such small note circulation "specie-paying." It being the cheapest currency will at once throw it in the market, to the prejudice of the gold and silver change.

An incidental evil which attends a small note currency, is its great liability to being counterfeited and mutilated. Forgery may, without stretch of language, be said to revel in such small and contracted issues. Their circulation being chiefly amongst the innocent and ignorant laborers and trades-people, counterfeits are not easily detected by them. And in this wise, the greatest nuisance of a paper currency is inflicted on those who are least able to bear it. A prohibition of the issue of small notes by banks, we believe to be more highly conservative in its effect than all the boards of currency,

* The banks of Louisiana are cases in point. Having no small notes, their circulation is but $4,000,000; whilst their coin is $7,000,000.

bank commissioners, and legislative committees of inquiry ever convened.

The last requisite we shall enumerate, as needful to sound banking, is the personal responsibility of the directors or stockholders of such institutions for any loss that may occur.

We know there are many minor plans of checking abuses in banks. Boards of currency, supervisory committees, limitations of issue by an arbitrary standard of one dollar in specie for three dollars in paper; these and a host of other stays, checks, curbs and guards of very respectable character and much pretension, we pass over entirely. They are quite good in their place, but never yet could they protect the public from most disastrous imposition. They are continually evaded, and the public is never made conscious of their worthlessness until the bubble has burst, the failure has occurred, and the paper wealth is scattered to the winds. The idea of making stockholders, or directors, pecuniarily responsible for the shortcomings of their banks, will sound very radical to many. It will be conceived as utterly subversive of all joint-stock banks, and will be declared utterly impracticable. But let us pause, and inquire what is demanded of the stockholders, and what is given in return. A, B, C and D are partners in business, under the style of the Bank of E. They have mutually participated in the transactions of this bank; they have, perhaps, aided in directing its affairs, and reaped all the benefits derived from being employed in its management. These partners have, from time to time, been called on to examine the affairs of their joint firm, or bank; they have elected their officers; they have declared publicly the amount of their profits, and they have pocketed those profits. Such are their relations to the joint concern, or bank. Now, what has the public done for them? It has allowed them to exercise that almost regal privilege of making their promissory notes the money of the land. Their bills have been circulated in the exchange of products, and have been invested by the community with all the attributes of real and tangible value. Could a more magnificent boon be given to any set of men? With it they have the purse of Fortunatus almost made real, for their coffers are never exhausted by the outpouring of their real possessions.

Is it, then, asking too much of these partners, in return for such munificent endowments, that they shall make good any losses to which their joint firm may subject the community? Theirs have been the profits and patronage. Theirs was the privilege and duty of seeing that the bank was pursuing a safe and discreet line of policy. In other occupations, partners are subjected to losses by such errors as they make in the management of their affairs. They are compelled too, to make good, losses incurred through the malpractices of their associates and agents. Why, then, make the distinction in the pursuit of banking?

The principle has been practised on in Scotland for nearly thirty years, and has, as much as anything else, tended to impart that efficiency and prudence which have eminently distinguished the Scotch banks.

Since 1826, there have been nearly 50 banks established in that kingdom, each having numerous branches. In 1848 there were, of these 50 banks, eighteen banks of issue in full operation, having in the aggregate 14,235 partners or shareholders, 400 branches, and employing a paid-up capital of over $50,000,000.* With a few exceptions, these banks were conducted on the principle of personal responsibility of the stockholders for all obligations made. They have declared an annual average dividend of nearly 7 per cent., and their stock is generally at a premium of nearly 40 per cent. In one instance, the enhancement of stock is so enormous, as to be worthy of notice. An original share of £150 of the Aberdeen Banking Co., established in 1767, is now (1848) worth no less than £2,500.

Such figures are the best arguments we can adduce, in favor of the personal liability of stockholders. If Scotch banking, with this principle engrafted on it, proved so profitable as to raise its stock immensely above its par value, can we doubt its efficacy as applied to the still more profitable banking prevalent in this country? But the history of these banks furnishes a still stronger argument in their favor. From 1826 to 1848, a period involving the greatest commercial crises and pecuniary embarrassments, there were only six failures amongst the banks of Scotland, and three of these afterwards paid up in full. We challenge any other banking system to produce similar results.

Having now stated some general rules to guide us in our inquiry into the subject of banking, let us proceed at once to examine the free-banking system itself.

The New-York law presents us with the experiment in its best perfected and most approved form, and we will give but a passing notice to the schemes which obtain in other states. The constitution of New-York wisely leaves the details of the banking system to the legislature, and only confines its action by general clauses, to most of which we see no reasonable ground of objection. For, our opposition is not to banks in general, or to free-banking (using the words in no technical sense) in particular. We do not hesitate to say, that the present condition of banking in Louisiana is faulty, and should be changed, and that speedily. After giving all due security against the evils we have referred to, we think the system should be left open to all who are willing to embark their capital in it. But it is, as a friend of the proposed reform, sincerely wishing it God-speed, that we deprecate the evils we believe to be inherent in the New-York system.

It is not necessary to give the details of that plan. The banking laws of New-York, in some shape, are accessible to every one.

Our first remark is, that a power almost despotic is given to the superintendent of the banking department. This important officer receives his appointment from the governor for the term of three years. He has, by law, the entire control of the seals and plates used in the engraving of bank paper. He can withhold notes if he

* McCulloch on Banking.

does not deem the security deposited as sufficient, or if he considers that already accepted as an inadequate guarantee of previous circulation. He has power to tax, in such proportions "as he shall deem just and reasonable," the various banks of the country for the expense of sustaining his office. He has the power to examine the books and papers of any bank he may think unsafe, or the correctness of whose reports he may have reason to doubt. In fine, this is an officer irresponsible to the people, because appointed by the governor, who holds in his hands, not the keys of the treasury of the government, but of the currency of the land—who has power to make and unmake, to tax and coerce; to sit in inquisitorial power, and to condemn to a fate and punishment, surpassed only by the punishment of the inquisition itself, every banking institution in the state. For, great as is the power of this superintendent in making banks and issuing money, and judging security, still greater is his power to unmake these institutions. In him is vested the right to sell all the mortgages and stocks deposited by the banks. With him have the note-holders to deal to get their *pro-rata* of security, and in his integrity does the public rely for the soundness of the money they circulate. We need not describe how the law may be evaded by him, if he is so disposed, It is sufficient to know that it is human, and the temptations to violate it innumerable. Such one-man power is assuredly dangerous to the public welfare; and yet, it is but the least objection to this system. Any one familiar with banking, knowing the immense power it wields, its means of influence and corruption, will pronounce this duty as beset with imminent peril to the community. Let a feud spring up between the superintendent and some of the banks, or let high political excitement prevail, and these moneyed institutions will either become instruments of vengeance or of bribery in the hands of intriguing politicians. It is in the power of this superintendent in one month to stop scores of the banks, to plunge the community into a sea of the wildest speculation, from which it will only emerge a bankrupt and disabled wreck.

Thus far, New-York has been fortunate in its controllers and superintendents, and no such disasters have yet occurred. Indeed, she has been still more fortunate, in having a period of unexampled prosperity, in which to try the scheme of free banking. There has been no dreadful crisis to test the temper and strength of these institutions. But will she be always as fortunate? Is it wise to subject the labor and capital of the state to such dangerous risks? We are not called to prepare a mere fair-weather system, but one that will stand the severest trial and out-ride the most fearful storm. It is in the hour of danger that a sound bank is valuable. In prosperity all are good enough, and as with individuals so with them, credit gets cheap and money goes begging. But when the cloud gathers up, the prudent and frugal, the laborer and artisan, the widow and orphan, seek shelter in the staunchest institution they can find.

But the power of the controller or superintendent may be exercised in a still more prejudicial manner; not indeed by befriending the banks, but by attempting to crush a part of them—by arraying

against a particular class the prejudices and hostility of party. The bare mention of the danger recalls to mind the disgraceful scenes enacted in many of the states in 1838 and 1839. The dominant party, indulging bitter enmity against the management of some particular banks, would set to work to break them down. The banks in turn endeavoring to counteract such attempts, would set to work to break down the party. And thus a struggle commenced, which must end in the ruin of credit and commerce.

The memory of every one will supply the details of such a contest. How prostrate and desolate such struggles leave the monetary world, let the history of 1837 to 1840 tell!

Will Louisiana, then, entrust such despotic power over her commerce and prosperity to any one? It is utterly at war with all our sentiments and instincts, and can hardly find a foot-hold in our state.

The next objection to the New-York system is found in the nature of the security given. The propriety of making the state or national debt the basis of currency, involves the vastest considerations, and will be reserved for our next article.

ART. III.—MODERN GREECE.

[We have before stated our intention to furnish a series of historical, descriptive, and statistical papers upon the various European powers; and, sometime ago, began the series with Turkey. The present sketch is from the able pen of Professor Koeppen, who was for many years a resident of Greece, and who is a man of great learning and historical discrimination. He will conclude the subject in our next, bringing it down to the present moment, and contribute hereafter other papers of a less elaborate character to our pages.

Greece, which was the marvel of the ancient world in all that was truly glorious and great, was annexed to the car of Roman conquest in the year 146 B. C., and after 395 A. D., formed a part of the Eastern Empire. With the fall of that empire in 1458, the Turkish yoke succeeded to the Roman, but in 1821 the Greeks began to assert their independence, which, however, they never could have regained but for the intervention of other powers. A combined English, French, and Russian fleet destroyed the Turkish fleet in the Bay of Navarino, in 1827; whilst the French landing in Greece forced the Turks at the same time to retire. At this point Mr. Koeppen opens, and we shall only add a few statistical notes. The government is a constitutional monarchy. Revenues in 1846, $2,414,365; expenditures, $2,464,405. Public debt, $16,000,000. Army, 4,006 men; navy, 33 vessels. The commerce of Greece is about $13,000,000 exports, and the same of imports. The exports are currants, olive oil, wines, figs, almonds, gall, honey, raw silk, &c. There are 3,314 vessels. The Greeks are the best sailors on the Mediterranean, and unrivaled ship-builders.]—Ed.

The rising of the humbled and oppressed Hellenic nation against their Othoman tyrants, and the heroic fortitude with which they,

single-handed, for eight years repelled their overwhelming forces, forms one of the most interesting pages in the history of our century, and excites the more our admiration and sympathy, when we consider the weak and defenceless state of Greece in 1821, the heterogeneous admixture of her Romaic, Albanian, and Valachian population, and the political jealousy with which the great European powers, Russia, Austria, France, England, and Prussia, regarded every change in the relations of the Levant. Yet the valor, constancy, and disasters of the Greeks, roused the deepest feeling of compassion among their Western Christian brethren; the governments followed the general impulse, and the cannonade of Navarino, (20th October, 1827,) at last proclaimed an intercession in their favor.

Sultan Mahmoud II. had hitherto refused every mediation, but the occupation of the Peloponnesus by a French army in 1828, and the defeat of the Turks in the Balcan against the Russians, together with the treaty of Adrianople in 1829, secured *de facto* the entire independence of a suffering and decimated nation.

Count Capo d'Istrias had already arrived in Greece, and begun the internal organization of the young state; and though with inadequate means, this practical and intelligent statesman immediately laid the foundation for future development. But unhappily he found so unruly and quarrelsome a spirit among the Greeks, and so passionate and selfish an opposition among their leaders, that the coercive measures which he was obliged to adopt, in order to restore unity in the administration, soon brought on the most virulent opposition and open rebellion, to which he fell a victim.

It has often been said that he was a Russian at heart, and an enemy to the liberty of Greece. Yet great injustice has been done to Capo d'Istrias; some of his measures may have been too violent; but he has proved himself a man of extraordinary talents and ability. The monuments of his wisdom still speak loudly in his favor; reduced to his own scanty resources, he has done more for Greece comparatively, than later the Bavarian regency, with its loan of sixty millions of francs.

The president was assassinated by Georgias and Constantinos Mauro Michalis, in Nauplion, on the 9th of October, 1831. A civil war, more destructive and demoralizing than the long contest against the Othomans, now broke out among the political parties; and the feuds between Rumeliotes and Moreotes had risen to such a height that they threatened the final destruction of the distracted people,—when a Bavarian regency, with 4,000 troops, and shortly afterwards young King Otho himself, arrived at Nauplion in February, 1833.

In the midst of the civil dissensions, the shadow of a national assembly had met at Pronia, the suburb of Nauplion, in July, 1832, in order to re-establish the constitution of Troezen, which had been set aside by Count Capo d'Istrias. The minds of men were exceedingly irritated at that time, and violent discussions arose; but the diplomatic residents of the three powers at Nauplion interposed, and demanded that the assembly would not, by precipitate measures, increase the existing anarchy, but quietly await the arrival of the new

king, in common with whose government the final constitution of the kingdom would be determined upon. This promise was not fulfilled; and it has often been repeated in aftertimes, that King Otho ought instantly, on his landing in Greece, to have called together a national assembly, granted a liberal constitution to the Greeks, and placed some of their distinguished men at the head of his government. But such a system at that time would certainly have become impracticable, and instead of pacifying the parties, would only have contributed to prolong the anarchical state of that unhappy country. Whoever has lived in Greece during that distressful period, from 1832 to 1835, will fully understand the impossibility of uniting in one government, minds like those of Mavrokordatos, Kolettis, Metaxas, Kolokotronis, Konduriotis, and others, whose violent ambition and inveterate jealousies have, after the tranquillity of ten years, with the new constitution in 1843, revived the old dissensions and bloody feuds which, even at the present moment, are weakening and distracting the constitutional government of Greece. Now, in 1833, a regency, composed of *foreign* statesmen, who themselves were legislators and organizers, supported by a strong body of foreign troops, were of the highest necessity, without whom there would have been no end of the chaos. The Greeks themselves were of that opinion—they wanted bread, and a strong hand to crush the hydra of dissension.

The hopes of Greece were, therefore, raised to the highest pitch; and, indeed, the energetic measures of the regency, backed by the regular army, and a loan of sixty millions of francs, or twelve millions of dollars, soon effected the pacification of the country; all the fortresses and mountain-strongholds were opened without resistance to the Bavarian troops; the *pallikars*, or irregular Greek warriors, were marched off to their separate camps, where they were drilled and equipped to serve as regulars, and thus tranquillity was soon restored, even in the mountains.

The Turks, who still were in possession of Attica and the Island of Eubœa, sold their estates, and retired to Thessaly. A frontier line, extending along the mountain-ridge of Othrys, from the Gulf of Volo to that of Ambrakia, or the Ionian Sea, was laid down by commissioners, appointed by the three protecting powers and the Porte, and very soon a perceptible amelioration took place throughout the kingdom. A regular government was established; general governors were appointed for the Peloponnesus, the mainland of northern Greece, and the islands of the Ægean. Three central tribunals were erected, and Greece organized on the style of a European kingdom. But here unhappily lay the great difficulty; because this too close imitation of a small German court, with a host of military and civil officials strutting about in rich uniforms, was ill chosen for poor, emaciated Greece. Among all the Bavarian counselors who were sent from Munich to organize and civilize Greece, there happened to be not one man of genius or profound learning, joining a true and deeply-felt admiration for ancient Hellas to the necessary familiarity with the history and language of the modern Greeks. Hofrath Thiersch, the professor of the University of Munich, and author of an able work

on Greece,* would, perhaps, have been the man. He possessed an immense popularity in Greece; he spoke the language, knew personally all the leaders and their partisans, and had once put himself with Kolettis at the head of the Rumeliotes against the Capo d'Istrian party in Nauplion. He was with anxiety expected in Greece; but the suspicious politics of King Lewis chained him down to his chair at the University. All the counselors and other officials sent to Greece, with the only exception of the Chevalier de Maurer, were home-bred Bavarians, who, with the best possible will and intention to do everything right, did many things wrong, because they were ignorant of the language, the religious prejudices, customs and habits of that lively, cunning people, who, having suffered all the demoralizing effects of a desperate war, could only be brought back to labor and order by an austere and active government, employing the ablest Greeks themselves as its instruments to give a national organization to their country. This, most unhappily, the regency did not; they had no confidence in the Greeks, and took the whole government into their own hands. Numerous laws, decrees, ordinances, written in the diffuse, unintelligible Bavarian dialect, translated into a bad French, and then into a worse Greek, were promulgated, but hardly understood, and never executed. Count Armansperg directed the finances and the diplomatic relations with the powers. Chevalier de Maurer, an active and able jurist, introduced an excellent criminal, civil and commercial code, which contains trial by jury, and may be considered a *permanent benefit* to the Greek nation. On the other hand, did his suppression of the convents on the mainland of Greece, (with the exception of Megaspilœon and a few others,) prove to be a rash and inconsiderate measure, because the *Kalogeri*, or Greek monks, are farmers, who pay their tithe and rent; and by depriving them of their estates, the lands remained waste, and government lost the annual revenue. King Otho has, therefore, a few years ago, been obliged to give the monasteries back to the fugitive Kalogeri, in order that their fields might be cultivated, and the taxes paid. The formation of a Greek synod at the head of the oriental Greek church, independent of the Patriarch, was highly beneficial, and cut off all the intrigues and ecclesiastical communications with Constantinople.

The *Klephties*, or robbers, who had infested every part of Greece, were destroyed during the two first years of King Otho's government. They had formed some strong and dangerous bands on the Thessalian frontier; but during summer, in 1834, they were surrounded, and after a most desperate combat, cut to pieces by the brave Philhellene, Colonel Christoph Fabricius. A few gangs still infested the Arcadian mountain passes, but soon dispersed, and Greece enjoyed the benefit of nearly perfect tranquillity and security from the robbers until the general demoralization which followed the September revolution of 1843. One of the best organizations of the Bavarians was

* De l'etat actuel de la Greece, et des moyens d'arriver à sa restauration. Leipzig, 1834. 2 vols. 8vo.

that of the gendarmerie, or Χοροφυλακή, an armed police-corps of twelve hundred men, horse and foot, commanded by the vigilant Colonel de Rosner, a Bavarian officer, who was highly esteemed by the Greeks, and knew how to inspire them with feelings of honor and fidelity. The wild Maniatæ, or Mainotts, living on the barren and rocky coast of Laconia, were pacified by another worthy Bavarian officer, Colonel Feder. They broke their castles, submitted quietly to their liege lord, and entered his army. Thus the general tranquillity on sea and land soon permitted the Greeks to return to their wonted occupations, agriculture and commerce.

Yet, how much soever the regency exerted itself by beneficent measures and German institutions to improve the condition of the country, they, nevertheless, found a continual and secret opposition in the Capo d'Istrian party, at the head of which were several of those chieftains, who, nine years later—in 1843—succeeded in overthrowing the Bavarian system of government, and introducing a national constitution. The warriors who planned the *first* conspiracy against King Otho were the old Theodoros Kolokotronis, of Karitena in Morea; Makry-Yannis, of Athens; Rhigas-Palamides, of Kalabrita in Morea; Spiridon-Milios, a brave captain of Epirus; Londas, Kolliopulos, and many others. Their plan was to seize the young king; to arrest the regency and to send them home; then to take the government into their own hands, and to proclaim a constitution in accordance with their own interests and those of their armed followers. But such a plot could not succeed in 1834, because the tormented nation was now for the first time, after so many misfortunes, enjoying the fruits of reviving industry and commerce. The regency had money, troops, and a body of well-paid Greek *employées*, who were ready to obey the slightest intimation of the will of Count Armansperg. The plot was betrayed to an intelligent German secretary, Dr. Trank, who instantly gave notice of it to the Count. The conspirators were seized, and after a curious sham trial, the old hero, Kolokotronis, and Kolliopulos, were condemned to death as traitors to King Otho. This ridiculous sentence was, of course, commuted to another of a temporary imprisonment; yet the armed retainers of the leaders flew to arms, and an insurrection broke out in the Morea. The Bavarian troops, who had never served in the mountains, were now most imprudently sent against the active and insidious Mainotts who awaited them among their inaccessible precipices. The Germans, full of ardor, advanced into the centre of the Maina, where they soon found themselves surrounded by numerous bodies of daring mountaineers, who, cutting them off from the sea, and keeping them blockaded on the barren crags of Zimova, forced several detachments to surrender their arms, and obliged at last the disgraced government in Nauplion, with thousands of dollars, to release the rest.

The position of the regency now became awkward and dangerous. To quell the rebellion in the peninsula, Kolettis was called in to support the government with his warlike and faithful Rumeliotes. More by his simple appearance than by his sword, Kolettis restored tran-

quillity to the Morea. Kolokotronis now received his full pardon, and was drawn to the court, and Kolettis was nominated minister of the interior and president of the council.

But this victory did not strengthen the Bavarian rule; on the contrary, it served only still more to weaken it. A most unhappy contest rose between the members of the regency themselves; each faction sought every possible means to fortify itself by forming a party among the Greeks, who, of course, wished for nothing more than intrigue and cabal. Count Armansperg was supported by the Prince Alexander Mavrokordatos and that host of Phanariotes from Constantinople, who, having lost their lucrative offices in the Turkish service by the revolution of 1821, had now come down to Hellas, where, well instructed in European languages and manners, they soon formed the *elite*—not of the Romaic nation, by whom they were envied and detested, but of the gay gentlemen of the drawing-room, of the household officers and boastful councilors of Count Armansperg. Nay, the count even went so far as to give his two charming daughters in marriage to the two brothers, the princes Kantakouzenoi, quite contrary to the doctrines of the oriental church, which prohibits a marriage of so near relations. On the other part, was Chevalier de Maurer, supported by Mr. Abell, General Heydeck, and Kolettis, with his Rumeliote captains. But great as was the outcry, Count Armansperg succeeded at the time; he bore down his opponents. Chevalier de Maurer and Mr. Abell, the most intelligent members of the Regency, were suddenly recalled to Bavaria, and their places supplied by the councilors de Kobell and de Greiner, who were altogether unfit for the high station entrusted to their care. The count, at the head of his brilliant Phanariotes, and vigorously supported by Mr. Dawkins, the British embassador, went on in great style. Athens was declared the capital of the kingdom, and large sums were spent in rebuilding that inland city, where government was obliged to buy every span of ground to erect the necessary buildings for the public service. The foreign embassadors vied with one another in giving routs, masquerades, and theatrical representations. All the hotels and coffee-houses were crowded with Greek and German officers. Lancers, grenadiers, and chasseurs were parading and mustering, as if the Seraskier, with his Turkish spahis, was at the gates of the city! The activity of the secretaries, clerks, and translators, was very great; yet, among the many decrees promulgated, few were of any real importance to the improvement of the country. German architects, engineers, geometers, foresters, were galloping off in all directions; but unhappily the cities were rebuilt but in part; the fields, though measured, were not sold or cultivated; the harbors not repaired; the roads not opened, and the forests not protected! Blunders and mistakes were continually made, which, forming the topic of the day, made the people at Athens laugh heartily at the want of tact which the Bavarians showed in nearly every branch of the administration. One or two will illustrate this. General Schmalz, formerly a colonel of dragoons in Bavaria, was now minister of the war and navy department in Greece. Supposing that light dragoons were the proper persons to

civilize Greece, some troops of these expensive horsemen were sent to Athens, where the minister soon discovered their total uselessness in so mountainous a country, and therefore resolved to send them back, and instead of them to order miners, sappers, and military workmen. Several of these mechanics had just landed at the Piræus after a long voyage from Trieste, when they immediately received the order to re-embark and to return to Germany. The Bavarian officers were already obeying the order, when General Heydeck, one of the regents of the kingdom, by chance taking a ride to the Piræus, learned this singular occurrence. He therefore instantly, on his return to Athens, called on the minister, and inquired why he sent those useful troops back to Munich? M. Schmalz stared at him and exclaimed, in his coarse Bavarian dialect —"*Ei was, di' Leit' seind ha'lt nit g'sheit!*"—the people are crazy. The order was now produced, and it appeared that the general had written *ouvriers*, or workmen, instead of "*chevaux legers*," or light dragoons! These latter were accordingly sent back to Germany, and an attempt afterwards made to colonize the Bavarian workmen in Greece, which did not succeed. Another still more ridiculous accident happened in 1834, while government was residing in Nauplion. Some disorders having taken place at Syra, between the German military and the citizens, a combined court-martial of military officers and civilians of high standing had been sent off to that island. Sentence was passed accordingly; the proceedings were sent back to Nauplion, and the court there awaited for orders to return. But no such orders came. A week passed away—a fortnight —a month—six weeks! Every body in Nauplion wondered at the absence of so many high-paid state officers. At last, a secretary expressed his astonishment to General Schmalz, who looked foolish, and exlaimed: "Sapperment! the order lies in my great coat!" Another mistake of Count Armansperg was still more unpardonable. Among the many Bavarians who, during this period, received offices in Greece, which they considered no better than a sort of Bavarian Algiers! was a certain Baron Von Tettenbach, a particular friend and *protege* of the count. This worthy was sent as president to the court of justice, which had been organized at Tripolitza, in Arcadia. A month or two later it happened that the royal gendarmes, or *chorophylakes*, had surrounded a gang of robbers, or *klephties*, in the mountains of Divri, and after a desperate struggle, taken them prisoners. In one of their dens the gendarmes found, among other spoils, a strong iron chest filled with splendid Turkish weapons, such as pistols, daggers, yatagans, sabres, and the like, all richly ornamented with gold and silver, diamonds, rubies, and other precious stones of great value. As these Turkish trophies had been robbed from different persons, who now pretended to reclaim their property, the chest was transported to the tribunal at Tripolitza, and placed in a cabinet adjoining the court-hall. But on a night when the janitor of the tribunal had returned late at home from a party, he heard a noise in the upper story of the house as if somebody was at work with a hammer. Instantly supposing that thieves had entered

the house in order to rob the precious arms, he hurried to call the neighbors to his assistance. A large number of Greeks now surrounded the court-house, while the janitor, and another troop armed to the teeth, and holding lighted torches and cocked pistols in their hands, silently stole up the stairs, and suddenly burst into the hall. But who would be able to describe their surprise, their amazement, when they found Baron Von Tettenbach, the president of the tribunal, standing with sledge-hammer and crowbar, knocking away on the iron chests of the klephties containing the Turkish arms. The Bavarian felt a little awkward, but recovering his presence of mind, he called out to the janitor that he was a blockhead, having locked the door of the hall upon him, and thus forced him to while away the dreary hours of night with knocking a little at the chest. But the Greeks were too shrewd a set of people not to hiss and hoot at the president, who was instantly arrested. This curious but scandalous affair ran like wildfire through Greece. Count Armansperg got into a fury; and a few days later, it was reported in the newspapers that Baron Von Tettenbach had passed through Patrasso on his route for Bavaria.

These, and numberless other mistakes and faulty measures, still more expensive, such as the unsuccessful military colonies established at Tyrinth and Erakli, were daily committed by the government of Count Armansperg. They exposed the Bavarian ministers to the witty sarcasms of the Greek press, and created a general dissatisfaction throughout the nation. Yet the cause of this slow progress in the different provinces of the kingdom did not altogether originate in the ignorance and blunders of the administration, but partly in the totally exhausted and depopulated state of the country, in the avarice and selfishness of the Greek governors themselves, and partly in the want of confidence, good will, and activity among the inhabitants, and their continual fear of the chieftains, by whom they so often had been robbed. Instead, therefore, of employing their means in extending their agriculture, they would conceal their money, bury it deep in the earth, and wait for the turn things would take, without cultivating more ground than that which was absolutely necessary for the scanty support of their families. During the spring of 1835, it was a general opinion at Athens, that the existing system of administration could not be continued for three months longer—and this proved true.

King Otho, having become of age, took the government in his own hands on his twentieth birthday, June 1st, 1835. The regency, on this occasion, gave another instance of their extravagance and indiscreet wastefulness of the public treasury. Though they had already expended the greatest part of the two first series of the loan, they resolved upon giving the Greeks the brilliant exhibition of a grand coronation. The silly councilors, Von Kobell and Von Greinir, had a month before sent a number of big folio volumes to Doctor Lewis Ross, the director of the excavations on the Acropolis, with the order for the learned antiquarian to *extract* all passages from the Byzantine historians of the middle ages referring to the pompous coronations and processions of the Roman emperors of Constantinople, which were to be imitated at the small court of King Otho, in the midst of the

ruins and misery of modern Athens! This folly speaks volumes! But the good sense of the excellent young monarch instantly put a stop to this last infatuation of the regency. His accession to the throne was celebrated by an interesting festival in the true national style. On the plain, north of Athens, near the academy of Plato, were held the gymnastic exercises of the muscular and nimble Greeks, in the presence of the king, court, and assembled Athenians; the pallikars, gorgeously dressed, on their prancing steeds, were throwing the *jerid*, or Turkish javelin, in imitation of Eastern warfare—all combined, presented an animated and highly picturesque spectacle, on the old classical soil, suggesting so many pleasing associations, and being illuminated by so glorious a sun, that it appeared to the beholders more like a beautiful dream of fancy than the happy day of Grecian regeneration and independence *in all reality!*

The first act of the young king was the dissolution of the regency, who, with a large number of foreigners and the greater part of the Bavarian troops, were sent back to Germany. Only Count Armansperg remained as archi-kangellarias, or chief chancellor of the kingdom, and a great council of state formed, consisting of thirty-six of the most popular leaders of the nation. This institution would certainly have proved highly beneficial to the country, and have contributed quietly to prepare the foundations for a more liberal constitution, if Count Armansperg had been sincere in the choice of its members, and had granted them enlarged powers for consultation. But the chief chancellor not only selected as councilors of state those chieftains who were most dependent on government, and secured their votes by large salaries, but he ordered all the *leaders* of the different parties, the most intelligent and influential statesmen of Greece, to be sent off as embassadors to foreign courts. This was a truly diplomatic *coup d'etat!* Kolettis, the leader of the French party, went to Paris; Count Andreas Metaxás, the Napist or Russian chief, to Madrid; Prince Alexander Mavrokordatos, to Munich, and afterwards to London, where he replaced the less dangerous Spiridon Trikoupis. Strongly supported by England, Count Armansperg had now got his hands free; he maintained peace and tranquillity throughout the land, and turned his attention seriously to the social and literary improvement of Greece. *Sui cuique!* It would be unjust not to own that many excellent works were undertaken by government in this period.

A great amelioration now took place in the general aspect of that beautiful, but suffering and desolate country. If a traveler would compare the flourishing condition of Greece during the reign of King Otho, with its nearly total desolation in 1828, on the arrival of the French army, he could not but rejoice at the change. Many cities, such as Athens, Thebes, Livadia, Lamia, Corinth, Argos, Tripolis, Mistra, Calamæ, Pyrgos, and Patræ, presented, in that distressful period of war and civil discord, nothing but heaps of ruins. Churches and monasteries, towns and villages, vineyards and olive-groves, had been totally destroyed. The fortress of Nauplion, the nearly inaccessible Dimitzana, in Arcadia, Arrhachova, on Mount Parnassus, the monastery Megaspilæon, and the villages of the Maina, were the only places

on the mainland of Greece which had escaped the sword of the Turk or the Arab; while the islands of Hydra, Spezzia, and Ægina, were the only safe retreats of the fugitive inhabitants.

The towns and villages were now quickly rebuilding; extensive mulberry and olive-groves began again to embellish the beautiful plains of Messina and the valley of Laconia, where a new Sparta rose on the banks of the Eurotas, at a short distance from the ruins of the old. The swamps of the Piræus, of Argos, and Pyrgos, in Elis, were drained or filled up. A Macadamized high-road was laid out between the Piræus and Athens; another was continued across Mount Cythœron to Thebes, and along the Copaic lake to Livadia and Thermopylæ; and a third one from the table lands of Arcadia to the coast of Nauplion. The plains of Bœotia, Locris, and the island of Eubœa were again cultivated, and covered with wheat, barley, and maize; the hills of Achaia and Elis with precious currant plantations. Sugar mills were established at Thermopylæ; silk spinneries at Sparta and Nisi; paper mills at Dimitzana; powder mills at Kephalari; coal mines were opened at Kumi, and copper mines explored at Karystos, in Eubœa, where it was proposed to build a new harbor. The ports of Piræus and Syra were repaired, and many useful public buildings erected. The University of Athens was founded; the *didaskaleion*, a seminary for teachers, four colleges, and a large number of preliminary and Hellenic grammar schools were opened, and soon filled with studious young men.

But all this was not enough in a country where new resources of industry and produce were to be created. The borrowed funds of the sixty millions had not been judiciously or economically administrated, according to the views of Professor Thiersch, to the direct encouragement of agriculture, to an equitable distribution of public lands, and the liberal establishment of colonies for the Greek fugitives from Chios, Ipsara, Crete, Cyprus, Thessaly, Epirus, Macedonia, Asia Minor and Constantinople, who, without support, were suffering the greatest distress in Syra and Ægina; and seeing all their hopes of a permanent settlement frustrated, were obliged to abandon Greece and return to Turkey! And yet were the intrigues and jealousies of the native Greeks themselves the principal cause of the failure of the two colonies at Eretria and Karystos, in Eubœa!

Another difficulty which the government of the chief chancellor had to overcome, was the indemnification to be granted to the Hydriote navy and the *kapitanei*, or commanders of the irregular troops during the war of independence. A large number of the former received their rank and pay as officers of the royal navy, and the latter were formed into a *phalanx* of eight hundred officers of different rank. They received a high pay, wore the splendid Albanian arms and costume, but did no service, and remained faithful to the king only as long as they received their salary. Many got assignments of lands and the means of cultivating them; but the old warriors had no taste for agriculture; they generally sold their shares to the neighboring villagers, and returned to the coffee-houses in Athens. When the treasury, in 1843, became exhausted, they were the *first* to take up

arms against their sovereign, hoping, by getting the administration into their own hands, to renew their former military sway. But fortunately for Greece they did not succeed.

The defective system of administration, and the open protection given by Count Armansperg to the intriguing Phanariotes, nourished the fermentation in the mind of the people, and gave rise to an opposition of the press, which at the time was moderate, but in the course of a few years became formidable, and evidently tended to the overthrow of the existing government.

Another evil still more neutralizing the activity of the Bavarian administration, arose from the petty and despicable rivalry of the embassadors of the three protecting powers, who used every effort to keep up their predominant influence in the small infant kingdom of Hellas! This would, to the general observer, seem to be nearly incredible; but it is, nevertheless, a most remarkable historical fact. Great Britain evidently disliked the commercial and political development of Greece, and dreaded her influence on her Hellenic brethren in the Seven Ionian Islands, and in Candia. This is plainly proved by the continual intrigues of the British Lord High Commissioners in Corfu, where the Italian language was encouraged and protected, and the Greek mother tongue disowned and regarded as revolutionary!

Russia had, by her victorious war against Turkey in 1828 and 1829, and the treaty of Adrianople, rendered a *more efficient support* to Greece than any *other* European power, and mainly contributed to the recognition of her full independence by Turkey; yet she did not possess any strong hold on the affections of the mass of the people, though she belonged to the oriental Greek church, and her influence was at the time circumscribed to the keeping up of a Napist or Russian party, consisting chiefly of the clergy and of some bribed chieftains, who formed an armed vanguard for the future advance of her armies on Constantinople.

France, on the contrary, sincerely desiring the consolidation and free development of the young kingdom, showed herself more disinterested, and in consequence possessed more than any other of the great powers the affection and gratitude of the Greek nation, who looked upon the French as their true allies, who had made the most generous sacrifices for her preservation and liberty. France, therefore, succeeded, by the ingenuous conduct of her embassador, M. de Lagréné, to secure an alliance, which might become important with regard to her political relations in Syria and Egypt.

King Otho went to Germany in 1836, and married the beautiful princess Amelia of Oldenburgh. Count Armansperg, in the meantime, governed Greece like a sovereign, and by his intimate alliance with the British embassador, Sir Edmund Lyons, the successor of Mr. Dawkins, the count, by degrees, attempted to emancipate himself from the control of the court of Bavaria. But the dissatisfaction in Greece with his protection of the Phanariotes, and his arbitrary and interested measures, became general; his influence was even undermined in Munich by the Bavarians themselves, and King Lewis de-

manded his dismissal. On the 14th of February, 1837, King Otho arrived in the Piræus with his lovely queen, and Mr. Rudhardt, the new prime minister. The chief chancellor quite unexpectedly received his *congé*, to the great disgust of Sir Edmund Lyons and the universal satisfaction of the Greeks. Count Armansperg soon after left and retired to his estates in Switzerland, not without having improved his own fortnne with the spoils of poor Hellas. This was the common opinion both in Greece and Bavaria.

Mr. Rudhardt was a very plain and honest Bavarian, who had distinguished himself as a provincial governor in Germany, and as an able speaker in the national assembly at Munich, but he was totally ignorant of the relations, language, and politics of Greece. He arrived unprepared for his high station; with the best intentions, he resolved to carry out the Bavarian system in Greece, and not to listen, either to the insinuations of Sir Edmund Lyons, or to those of M. de Lagréné, or the Greeks themselves—but just straightway to execute the orders he regularly received by couriers from the council of King Lewis of Bavaria. Yet, instead of gaining friends and partisans by standing aloof from all parties, he soon found himself surrounded by enemies, who joined a coalition against him. The miserable state in which Count Armansperg had left the finances, did not furnish the means for maintaining the royal household, the Bavarian army, and numerous officials in different departments of the public service. The storm broke loose against poor Mr. Rudhardt. He resigned in the month of December, 1837, and died broken-hearted on his return to Trieste.

In this dilemma, King Otho resolved upon a change of system, and chose a native Greek minister, the intelligent and active physician, Dr. Glarakis, from Syra. He instantly disbanded the greater part of the German mercenaries and many foreign officials, such as geometers and foresters. He then boldly attempted an improvement of the dilapidated finances by introducing a greater regularity in the perception of the tithes and taxes, and the most rigid economy in the administration, diminishing the fees of some and the pensions of others. But alas! instead of gaining the confidence and good-will of the nation, the government of Mr. Glarakis now lost its power and respect. The parties grew bolder, and a second conspiracy against King Otho was plotted by the Napist party. The leaders taking the mask of hypocrisy, formed a *Philorthodox Society*, which, under the pretence of supporting the sinking Greek Church against encroachments of Protestantism, by placing her under the direct guardianship of Russia, intended nothing less than the overthrow of King Otho's government and the revolt of all the rajahs or Greek subjects of the Porte. The real and important object of this secret rebellion, therefore, had in view the re-union of those four or five millions of Greek and Bulgarian Christians, the re-conquest of Constantinople, and the formation of a Greek empire under the sway of a Russian prince!

The period for so vast an undertaking seemed singularly propitious. The total defeat of Hafiz-Pasha and the Turkish army at Nezib, in Syria, the sudden death of Sultan Mahmoud at Constantinople, and the treacherous surrender of the whole Othoman fleet by the

Capudan-Pasha to the powerful Viceroy of Egypt, had placed the throne of the young Sultan Abdul-Meshid on the very brink of a precipice. An open insurrection broke out in Creta, and Greek intrigues spread the alarm through all the northern provinces of Epirus, Thessaly and Macedonia. But the leaders of the Philorthodox Society, Count Augustin, Capo d'Istrias and Nikitas Stammatopulos, were men without talents, means or influence. This second plot, which was to have broken out on New-Year's day, 1840, while King Otho, surrounded by his ministers of state, attended divine service at the Church St. Irene, was revealed, and the conspirators disarmed and imprisoned. Count Augustin fled from Corfu to Alexandria, in Egypt, where he died shortly afterwards. Government was again victorious, but this success did not save the minister, Mr. Glarakis. He resigned, and returned to practice medicine at Syra. The learned and eloquent Zographas was his successor. During the winter, 1840, the greatest exultation and desire of conquest reigned in Greece. Turkey was supposed to be lying in her last agonies, and the Greeks considered it as the most favorable moment for taking up arms, and by a sudden onset invade Thessaly and Epirus, where the Christian population were expected to rise and follow the standard of the cross. The commanders of the royal troops on the Turkish frontiers of Mount Othrys deserted into Thessaly and Albania, proclaiming on their own responsibility the warlike projects of King Otho. Armed bands of mountaineers already began the marauding warfare on the outskirts of Thessaly—while a badly armed and nearly starving Turkish army began to assemble at Larissa, at the foot of Mount Olympus.

The Albanian chiefs received the Greek officers, with their glittering epaulettes and golden tassels, very well. "They were ready," they said, "to rise and assemble their clansmen, but they first wanted to see the color of King Otho's money;" and when the Greek emissaries then, in their disappointment, made fine speeches about patriotism and liberty, the Albanians beckoned them to begone, with their usual "*besa dia besa.*" Let peace be among us.

In Candia the Greek sympathizers fared still worse. Many unruly and warlike *pallikaria*, among whom were several quiet citizens of the Piræus, such as Lambrinidis and Captain Manolas, who had distinguished themselves in the war of independence, and several hundred others, who, by this expedition, hoped to force government to a public demonstration against Turkey, secretly embarked for Creta. Twenty-five thousand drachms, or three thousand American dollars, a large sum for Greece, were collected—every official giving his share—and some Hydriote barks, no doubt, with the secret connivance of the Greek minister of the navy, Mr. Kreesis, occupied the royal arsenal at Poros, and embarking cannon, small arms and ammunition, set sail for Candia. A decisive blow might perhaps have been struck, and a revolutionary fire spread throughout European Turkey; but the indecision and timid politics of King Otho, in every measure yielding to the inspirations of the Court at Munich, suffered

the only favorable moment to pass—and thus all the private exertions of the Greeks were in vain.

The alliance of the four great powers in July, 1840, decided the fate of Syria and Egypt, and once more supported the tottering skeleton of the Othoman empire. The Turkish Admiral Tahir-Pasha landed with troops on Creta. The Candiotes proved traitors to their Greek auxiliaries. The brave Captains Lambrinidis and Manolas were treacherously slaughtered during a parley by the Turks, and their followers, robbed of their arms and baggage, fled to the coast, where they were saved by a British man-of-war. The Greek government now publicly disavowed the disturbances on the frontier, and declared its peaceful intentions towards Turkey. But this declaration only augmented the general dissatisfaction in Greece, and the hate against King Lewis of Bavaria, whom the Greeks looked upon as the main cause of the unwarlike and anti-national measures of their own government. Zographas, the prime minister, had negotiated a commercial treaty with Turkey, which proved unfavorable to the Greek maritime and commercial interests, to which King Otho refused his ratification. A violent outbreak against the premier took place at Athens; he retired, and his successor found himself in a still more difficult position, without any hope of extricating himself, except by contracting a new loan to cover the running expenses of government. It was Austria, who, with the guarantee of King Lewis of Bavaria, granted a loan of one million of dollars.

The Russian or Napistic party continued in its efforts to nourish the universal discontent, and the Athenian newspapers, particularly "*The Age*" and "*The Friend of the People*," began to sound the trumpet of a crusade against the ministry. The London Morning Chronicle, which at that time was considered the organ through which the foreign office communicated its opinions and prejudices to the public, went even farther—its columns were filled with injurious articles against the Greek government, and the most scandalous attacks against the person of the king and queen, in which the kind and benevolent Otho was called "the puny wretch who was permitted to trample on Greece—who hesitated at no fraud, and blushed at no falsehood." These calumnies appeared in the form of letters, from a correspondent at Athens; but it was evident that they originated in diplomatic circles, where dark intrigues were known, of which the public were ignorant. It was therefore generally supposed at the time that they flowed from the pen of the bilious Secretary of the British legation, Mr. Griffith, and were not unknown to Sir Edmund Lyons himself.* This correspondence divulged a nefarious at-

* I cannot omit to state here a curious fact, which has been grossly perverted in the letters of Mr. Griffith, and since repeated in the silly book of Lord Nugent, and some British Reviews. Among other falsehoods, they accuse the worthy Colonel of Gendarmes, Mr. Sinis, of the horrible crime of having *roasted alive* several Greek shepherds, &c. The truth, as told me by Col. Sinis himself, is this:—Pursuing with his gendarmes a gang of Klephties through the ravines of Mount Othrys, he found a shepherd sitting near a heap of ashes. To his questions the *tzupanis* answered that he had burnt some wood a few days ago, and that he knew nothing about the robbers. Sinis now ordered the gendarmes to put the fellow's head into the ashes, when he singed his beard, and called out: Appendi! the robbers just now roasted and eat my sheep; they are hidden in the cave yonder. They were of course immediately surrounded, and soon after captured.

tempt of Count Armansperg several years before to retain his position as chief-chancellor or regent of the kingdom, by means of a certificate signed by the physician in ordinary, Doctor Wittmer, the Bavarian Grand Master of Ceremonies, Count Saporta, and other persons holding high offices at court, who declared that the king, being an *idiot*, was unfit to govern the kingdom himself. The existence of such a plot among the Bavarian household officers against the monarch, produced a general outcry of indignation against Dr. Wittmer, who was the only official among those accused by the anonymous writer as still in service at the court of Athens. He was instantly dismissed, and ran some personal danger before his departure from Greece. The whole nation considered itself insulted by the publication of such calumnies in a ministerial paper, and by the insulting manner in which the despicable intrigues of Count Armansperg long after his downfall had been proclaimed with the sanction of the British ministry. The personal enmity of the Greek government and the British legation at Athens now broke out into an open feud. Some miserable Maltese street-porters, who had committed disorders in Athens, and been imprisoned, were, by Sir Edmund Lyons, reclaimed as *British subjects;* and an intoxicated English footman of a traveling lord, who had been arrested at Patras, was not only reclaimed, but the British embassador even insisted on the dismissal of the Greek officers and gendarmes in Patras, threatening with a hostile demonstration of the English squadron off Corfu!

King Otho, thus pressed on all hands, called Alexander Mavrokordatos from London to form a new ministry. This distinguished Phanariote, the rival of Kolettis and Ypsilantis, so well known for his talents and intrigues during the war of independence, was welcomed by hundreds of Greeks, high and low, who flocked to the Piræus to receive him, and placed themselves under his banner. This popular reception made him arrogant, and relying on the effective support of the English party, of which he was considered the leader, he in a somewhat high tone demanded of King Otho the dismissal of the foreign officers, the formation of a new ministry after his own choice, the independence of the synod, the publication of a budget, and the enlargement of the powers of the council of state—all measures that might be considered as preparatory to the introduction of a constitution. Maximilian, the crown-prince of Bavaria, and elder brother of King Otho, being at that time a guest in the palace at Athens, advised his royal brother at once to accept the propositions of Mavrokordatos. But the king, displeased at the proud bearing of the man, and yielding to the insinuations of his German counselors, rejected his propositions, and sent him off as embassador to Constantinople. The English party was thus defeated; the French had its turn. The governor of Syra, Khristidis, an inconsiderate and superficial man, the *protegé* of the French embassador, M. de Lagrene, was selected prime minister, and a new system began.

The royal authority once more prevailed. Alone, and abandoned by his partisans, Mavrokordatos departed from the Piræus for Turkey. All intelligent and patriotic Greeks were exceedingly sorry

at this event, yet they unanimously blamed the manner in which that statesman had demanded concessions, which, if made with some moderation, would possibly have saved Greece from the dangerous violence of a revolution. The Bavarian *camarilla* at court, in their short-sighted vanity, looked upon all this as a triumph; but their victory was not destined to be of long duration, nor to yield the golden fruits they so fondly had anticipated! The young sultan, Abdul-Meshid, in the meantime had come off victorious in his war against the Pasha of Egypt. Having recovered his Syrian provinces, the island of Candia, and his fleet, by the arms of the allied powers, a large Turkish army was assembled in Thessaly, and some light troops encamping on the frontiers of Greece threatened an invasion of Thermopylæ. Yet the diplomatic intercession of the great powers soon put a stop to these military demonstrations, and thus a second time thwarted the prospects of the warlike pallikars in Greece. All these disappointments augmented the dissatisfaction with the administration, and an external motive was now only wanting to kindle into a bright flame the glowing embers. This catastrophe was brought about by the financial distress of the country in 1843.

It is a well authenticated fact, that Greece never received the entire sum of the two first series of the loan of sixty millions of francs guarantied by the powers. Nearly sixteen millions had beforehand been expended in indemnities to Turkey, for the evacuation of Athens and Eubœa by the Othoman troops, and in discounts and commissions to the bankers; *ten* millions more were absorbed in Munich by the enormous expenses for the equipment and transport of the Bavarian troops to Greece; the rest of the two series and the loan advanced by Austria had contributed to support the government of King Otho during these ten years—1833 to 1843. The internal resources of Greece herself had, indeed, showed a rapid increase from seven millions of drachms, or 1,170,000 dollars, in 1834, to seventeen or eighteen millions of drachms, or 3,000,000 dollars, in 1843; but the budget was only nominal, and there existed an annual deficit of several millions of drachms in the real expenditure of government, which were only covered by artificial means; nor had it succeeded, in this long course of time, in opening new resources, which might have enabled it to pay off the pending interests of the loan. The payment of the third series of the loan was refused by Russia and England, and by the languid system which had been adopted, the administration was, in the year 1843, at last placed in the difficult situation of not being able to fulfil its obligations to the foreign powers, nor even to satisfy the many different claims and demands rising in the kingdom itself. All the parties which hitherto had fought separately, and therefore had easily been defeated by government, now, as it were, united and took hold of this dilemma, checking the activity of the administration, in order to represent it as unpopular and insufficient, and with loud clamors to demand a national constitution. The press continued the attack with the greatest acrimony, reviling all measures of government with that innate Greek

censoriousness, slandering even the most worthy foreigners, who faithfully and skilfully devoted their talents to the welfare and civilization of that neglected country. This injustice and want of discrimination done to private individuals, we find to be an inherent evil in all violent revolutions. The Napists, after their repeated defeats, now renewed their activity, and this time they received the direct support of the Russian embassador, Katakasi. A third conspiracy was secretly planned, which a few months later had a better success than the former attempts, and effected a total change of government.

It is now historically proved that the views of the Russian party tended not only to the subversion of the Bavarian rule, but even to a *change of dynasty*. During the summer of 1843, a curious libel in the Greek language was published at Constantinople, and widely distributed throughout the kingdom, in which the situation of Greece was depicted in the darkest colors, and it was suggested that the noble-minded Hellenic nation could only be saved by placing a certain powerful prince of the true orthodox Greek religion on the throne, by dismissing all the foreigners from the public service, and by forming a national assembly and a new constitution. The orthodox prince thus recommended was supposed to be the Duke of Leuchtenberg, the son-in-law of the Russian autocrat. Certain it is, that the cabinet of St. Petersburgh directly supported the machinations, by the publication of the infamous note of Count Nesselrode of March 7th, 1843, in which he openly authorizes any popular movement against the Greek government. In this note, the Russian prime minister not only peremptorily demanded the payment of the pending interest of the Russian dividend of the loan, but with the harshest and most unrelenting expressions reprehended the conduct of King Otho's administration in the presence, as it were, of the whole nation, and requested the instant dismissal of the army and navy officers and the strictest economy in the finances, as Greece, being placed under the immediate protection of the great powers, had no need whatever of an army or a fleet.

King Otho, intimidated by the haughty tone of Russia, and not possessing fortitude enough to return the answer which so unjust a command deserved, resolved to comply, without reflecting on the consequences of dismissing several hundred Greek officers, who immediately were to plan a conspiracy against his throne.

Nearly all the German officials, with the exception of some household officers at court, the professors of the university and colleges, and the engineers at Nauplion, were dismissed from the royal service, and sent back to Bavaria. The cavalry and artillery, with the exception of one squadron of lancers and a light battery, were disbanded, and the horses sold. The infantry shared the same fate, the battalions were reduced to companies. The corvettes and other vessels, even the royal steamer, were ordered to Poros to be unrigged, and the navy officers and crews were discharged.

Yet all these forced measures were in vain; and though one million and a half of the interest were paid off in July, the three protecting

powers, by their conference at London, sent in a collective note to King Otho, on the 5th September, 1843, in which the most unjust demand was made, that the king should give them an assignation on the principal revenues of the Greek kingdom, and call together a national assembly.

The contending parties in Greece thus openly encouraged and invited to rebel against their sovereign, had now united, and a conspiracy of the disbanded officers was organized during July and August. Old Kolokotronis had died in 1839; but the commander of the forces at Athens, Colonel Kalergis, from Crete; Makry-Yannis, of Athens; Griziotis, of Eubœa; Andreas Londas, of Vastizza; Theodoros Grivas, of Aiarnania; Rhigas-Palamides, of Kalabrita; Colonel Spiridon Milios, and many others, were at the head of the plot. The 16th September was fixed upon for its execution. Some vague rumors about a riot had begun to spread in Athens, and an intense excitement prevailed, but nothing was known with certainty. An Englishman, who, during the regency of Count Armansperg, had figured as prefect of police at Athens, and still kept up his connections with the people, learned the names of several of the conspirators, and hurried to the king, who, assembling the ministers, ordered the leaders to be arrested and placed before a court-martial. Vlachopulos, the minister of war, not knowing that Colonel Kalergis was at the head of the plot, called him to his presence, and commanded him to keep the garrison under arms, and ready to occupy the palace and squares of the city. The crafty Cretan, with a bold countenance, requested artillery and ammunition, and then sent the order to all the leaders of the conspiracy to strike the blow the same night between the 14th and 15th September.

The old warriors of Makry-Yannis were to assemble in his dwelling, situated near the temple ruins of Olympian Jove, on the outskirts of the town, while the pallikars of Griziotis from Eubœa, who already were on the march, received orders to occupy the heights and passes of Mount Parnes, and there await the fire-signals from Athens.

The troops of the garrison, consisting of two battalions of infantry, some light companies, a squadron of lancers, and four field-pieces, were at that time commanded by Greeks; the only two German sub-lieutenants still in service at Athens were ignorant of the movement, and afterwards hurried to the palace. A large number of Greek officers in glittering uniforms suddenly appeared in the theatre, to the astonishment of the quiet citizens, who had no certain knowledge of what was going on. The Russian embassador, Katakasi, gave a brilliant party that night, where many of the leaders were invited. When the clock struck twelve at midnight, Kalergis, with his officers, left the ball-room, called the troops to arms, and proclaimed the constitution. *Syntagma, syntagma,* (*constitution,*) re-echoed from hundreds of voices, and, at the head of his lancers, Kalergis now led the troops in perfect order through the large avenue of Hermes, and formed them in battle array on the square in front and rear of the new palace, while small detachments commanded by the young officers of the military college of the Euelpides were sent off to the

dwellings of the councilors of state, whom they arrested and brought together in the council-hall. Rockets were fired, and the wild pallikars from Eubœa, on the summits of Parnes, answered the signals by lighting huge fires along the mountain-tops, and then hurried downward to the city. The armed police or gendarmerie was at that time a faithful and well-organized corps, commanded by General Vlachopulos, the brother of the minister of war. He had ordered a strong detachment of gendarmes to guard the palace, and another body to observe the house of Makry-Yannis, which was the rendezvous of the pallikars. The alarm being given, and the inhabitants of Athens hurrying to arms, Makry-Yannis, with his retainers, were reinforced by the wild old warrior Kostas and another band. These meeting with the gendarmes, a skirmish ensued, in which a sergeant was shot; but Makry-Yannis rushing between the combatants, called out to them: "Stop, brethren, what are ye doing." He then explained their purpose, and the whole party, pallikars and gendarmes, marched off to the palace.

Here all was confusion; the guards had been doubled, and an adjutant to the king, Captain Skeinstorf, sent off to bring up the artillery for the protection of the palace. But arriving at the artillery-barracks, the Greek commander, Captain Schinas, gave him the haughty answer, "Go and tell his Majesty that the guns soon will be at the palace, at the order of Colonel Kalergis." The adjutant galloped back, and finding the infantry already forming before the gate of the palace, he put spurs to his horse and dashed through the line, overturning some soldiers, but succeeded in entering the palace with the news of the treachery of the whole garrison. Shouts of "Long live the constitution—long live the national assembly," resounded along the lines and among the thick crowds of armed Greeks, who were gradually approaching from all parts of the city, the Piræus, and the environs.

The generals, Gardikiotis, Grivas, and minister of war, Vlachopulos, came out of the palace, and ordered the troops and the people to retire; they were instantly surrounded, arrested, and conducted as prisoners to the barracks. The king then sent the master of ceremonies, Colonel Hess, the most hated man in the kingdom, to the balcony; but on making his appearance, the tremendous outcry of the multitude forced the Bavarian to retire. King Otho now stepped forward, and speaking French, he called for "le Colonel Kalergi"—to which Kalergis, saluting his majesty with his sabre from the front of the lancers, answered with a loud voice in Greek—"Sire! I am not now a colonellos, but a citizen of Greece, who with his fellow citizens most humbly requests your majesty to grant us a constitution." The king then required time for consideration, and ordered the troops and the people to retire." "Sire!" replied the steady Kalergis, "it is impossible, until your majesty has consulted with the council of state." The king retired.

The whole city was on the move; muskets were fired in the streets, and the armed peasants and mountaineers flocked in from the country. It was now two o'clock in the morning, when a rattling noise

was heard, and a brigade of artillery came up at full gallop. The guns were instantly unlimbered, and posted before the front and side doors of the palace.

In the mean time Colonel Spiridon-Milios, at the head of the officers of the military college, entered the *boulenterion*, or council-hall, and placing a brace of pistols on the table before him, ordered the trembling councilors, many of whom knew well how indifferent they had been about the welfare of their native country—leaving the most important affairs to the care of the Bavarian secretaries, to declare, that the council of state would take upon themselves the responsibility of the present movement, and hereby express their thanks to the people and the army for their admirable conduct, and decree—"that the whole army should take the oath of fidelity to the country and the constitutional throne."

The old councilors looked at each other, and then at the stern countenance of Spiridon-Milios, who, with his hand on his pistols, was the man to have shot down on the spot the first who would have dared to attempt any remonstrance. The act was therefore laid ready before them, and instantly signed. Then Andreas Londas, accompanied by a deputatiou of members, was sent off with this important document to the people and army assembled before the palace. Here the first constitutional act was read and received with loud acclamations. During the recital of the oath, the whole population raised their hands to heaven spontaneously, and the old Andreas was lifted up in the arms of the citizens and carried in triumph back to the council. An address to the king was now drawn up by Spiridon-Milios, and a commission appointed to carry it to the king and return with his reply. His majesty demanded to consult with the embassadors of the protecting powers, but this was immediately refused by the assembled multitude; and when the diplomatists in their state-coaches and in full uniform arrived before the palace, Colonel Kalergis riding up to them, said, "that this was wholly a Greek affair between king and people, and that until the king had terminated his consultations with his council of state, the foreign ministers could by no means be permitted to enter the palace." Baron Prokesch von Osten, the Austrian, attempted to advance; but perceiving the extreme excitement of the people and the firm array of the cavalry, he returned to his coach and departed. Baron Brassier de Saint Simon, the Prussian, burst out into violent protestations; but Kalergis and his staff-officers retained their *sang froid*, and quietly answered the hair-brained Prussian—"As for you, Master Simon, you have but too often entered the palace; and it is to the counsels of yourself, and such as you, that his majesty now owes all his difficulties."

The commission of the council of state still remained with the king. Otho proposed to consult with his father—with the powers—demanded three months—a fortnight—nothing could be granted; an implicit acceptance of the address was claimed.

Every delay seemed dangerous—signs of impatience were seen among the people and the soldiery. Cries were heard "to batter down the gates and storm the palace." While Kalergis, on horse-

back, was haranguing the multitude to keep them quiet, a gendarme at a window on the ground-floor of the palace most imprudently leveled his musket at him, but a German officer caught his arm and thrust him back. A shot at the commander-in-chief at that moment might have had the most melancholy consequences, as the enraged people, no doubt, would have taken the palace by assault, captured and deposed the king, and put all the Bavarian officers and courtiers to the sword.

During this interval of suspense and intense excitement, a ridiculous scene took place on the square before the palace. A young, elegantly-dressed Greek, lately returned from Paris, pierced through the crowd and the military, ascended the front stairs of the palace, and began to harangue the assembled people on liberty and the constitution, but with so affected and strange an accent, that the multitude, believing him to be a foreigner, cried "*joucha! joucha!* let him perish"—and making a rush forward, and laying hold on the supposed Bavarian, would have torn him to pieces, if he had not been saved by Kalergis and his lancers, who carried him, wounded and bleeding, to the hospital.

At last the commission of the state-council made its appearance and was received with unbounded joy, for they at once announced that King Otho had consented to the dismissal of the ministry and the foreigners in the Greek service, to the appointment of a new popular ministry, and the immediate convocation of a national assembly for the purpose of drawing up a constitution.

When morning dawned upon Athens, the troops and people, in various picturesque costumes, were still assembled before the palace; but the best order was observed during all the agitation of this most stirring night-scene: not a window of the palace, or garden pale, had been broken—not a flower gathered in the royal pleasure-grounds. Refreshments were carried round to the wearied soldiers and citizens, but no intemperance took place here among the sober Greeks, as would have been the case in other countries in Europe. Foreign ladies actually walked without fear about the palace, as spectators of this extraordinary sight. All the housetops around were covered with women and children, while on the square below thousands of *fezies*, or red skull-caps, were flung into the air; and the *zitos*, the music of the military bands, the singing and shouting, denoted the general harmony and gladness of this lively and good-natured people.

Different was the scene within the halls of the palace! As soon as the king had given his consent, the ranks of the military opened, and the foreign embassadors were permitted to enter. They found the royal family somewhat re-assured. Poor Amelia and her elder sister, the delicate duchess of Oldenburgh, had suffered some fear in the beginning; but the queen soon showed more fortitude than her royal consort, and advised him to mount on horseback and appear before the troops. Both Otho and Amelia were beloved by the Greek people; their annual progress through the different provinces of the kingdom had always been a continued triumphal procession. Personally they would never have been exposed to any real danger.

Amelia's heart was deeply touched when she learned that not the smallest injury had been done or attempted, either at the palace or the gardens, nor that any shout of insult had been uttered against herself or the king.

The foreign ministers played but a sorry part in the halls of the palace. When Otho with great animation gave them the details of what had occurred, the French embassador, M. Piscatory, was the only one who showed some presence of mind, and encouraged, and with French politeness, even complimented the young king "on the glorious days that would now dawn on Hellas, through the union of king and people." Baron Prokesch spoke with dignity. The Englishman stood aloof, and was silent; the Russian and Prussian are said to have shed tears, each in a separate window.

Though the mass of the people had hailed the constitution promised by King Otho with signs of satisfaction, the Russian party, the intriguers, and the dismissed officers, were quite astonished at the facility with which they had overcome the well-known obstinacy of his majesty, who thus had yielded to their demands. Many felt disappointed, distinctly betraying their dissatisfaction. Violent discussions arose in the council; the Russian party having the majority, and being bent on forcing the king to abdicate, proposed and obtained a vote, that the king should be required to thank the troops for their *good* behavior, to promise promotion to the officers, and a medal to all those who had aided or been present during the transactions of this glorious day, which in future was to be celebrated as the day of the regeneration of Hellas. The victory of the Russian conspiracy depended on a refusal on the part of the king, which they no doubt had anticipated. Every precaution had been taken in case of an assault on the palace, to transfer the royal family to the Piræus. The royal steamer had, by a previous arrangement with the prefect of the naval station at Poros, been equipped, and lay now with its boilers hissing at Ægina. On the first signal it would arrive at the Piræus, and bring the high personages to any part of Italy they might choose.

A second deputation then presented themselves with these hard and absurd demands, which afterwards were said to have been unknown to Kalergis and the army. The king received them surrounded by the foreign ministers. The tone of the speaker, Lidorikis, was haughty; only a quarter of an hour was allowed to his majesty for deliberation, and it represented to him that the army insisted on the conditions exacted. Otho hesitated. The queen, in an adjoining apartment, is said to have pressed him with all the earnestness of affection;—still, he remained undecided—when Lidorikis stepping forward, said these hard words: "Sire, if you do not accept these conditions, the Greeks will instantly storm your palace, cut down your Bavarians, and their blood will be on your head."

This was the moment of real danger; the populace, tired of the protracted scene of fifteen hours, and illuded by the intriguers as to the importance of the demanded guarantees, showed tokens of ferocity, and began to shout and clamor—when M. Piscatory, approaching

the king, exclaimed: "Sire, you have made already the greatest sacrifice: this is a comparative trifle; yield them this, and France will guarantee you the integrity of your crown!"

Otho yielded to these arguments, at the very last moment, saying with much feeling: "that though as a man, he felt the indignity offered to him, and would not personally have given way, yet as a sovereign, he was bound to concede even this point for the welfare of Greece."

The Bishop of Attica, heading a procession of priests, now entered the palace. The king and the council of state took the oath to the new constitution. Accompanied by the foreign ministers, he then appeared on the great balcony in front of the city, where he was welcomed with continued shouts by the multitude below. At 3 o'clock in the afternoon, on Friday, the 15th September, 1843, the troops with their colors flying, and their bands playing the national airs of Rhigas, marched off, and the crowds dispersed quietly; the same evening, perfect tranquillity reigned throughout Athens. The news of the bloodless revolution in the capital spread with the greatest rapidity all over Greece, and was everywhere hailed with joy. Kalergis had sent off a courier, who arrived at Nauplion on Friday at midnight. His dispatches were received by the Greek officers who were initiated in the plot. They went in a body to the commandant of the fortress, Colonel von Reineck, a Prussian Philhellene, who, being the brother-in-law of Mavrokordatos, was well acquainted with all the secret movements of the leaders. Thus the Greek officers, to their utter astonishment, found the old colonel in full uniform, saluting them with a "long life to the constitutional king of Hellas." In the presence of all the troops of the garrison, the oath was taken.

ART. IV.—TENNESSEE—HER MANUFACTURES AND INTERNAL IMPROVEMENTS.

[Will not some of our friends in Tennessee prepare for us a paper this summer upon the history, wealth, resources, etc., of the state, similar to the papers we have been publishing on the other states? We really desire this, and endeavored, when there last summer, to obtain sufficient data for an article of our own; but how much better can it be written by some one upon the spot. The paper we now present is interesting in many respects.]—Ed.

The situation of Tennessee as an interior state, makes it highly necessary that she should be connected by rail-roads with the Gulf of Mexico and with the Atlantic. This will appear to be the more important, when we consider her mineral wealth and her manufacturing power, to say nothing of her vast agricultural resources. As a manufacturing country, Tennessee has advantages equal, if not

superior, to any state in the Union. She has an abundance of cheap provisions, which is an important element of manufacturing prosperity. Her climate is healthful and agreeable, removed alike from the extremes of heat or cold. Cotton can be and is grown successfully, the average yield per acre for several years past being equal to that of more southern states. Either steam or water-power can be used in manufacturing as may be thought most advisable, since there are immense quantities of excellent coal in her mountains, and her streams are admirably suited to manufacturing purposes. When the rail-roads, connecting us with New-Orleans, Mobile, Savannah, and Charleston are completed, we will be able to enter into successful competition with any other country in the business of manufacturing. The effects upon ourselves of this change in our pursuits will be no less gratifying than astonishing. Whenever Tennessee becomes a manufacturing state, as her natural advantages eminently fit her to be, and as she must sooner or later become, instead of sending her corn, hogs, beef, cattle, and many other things of a similar nature to distant markets at great trouble, risk, and expense, her factories will furnish a market at home. These articles will command better prices than they now do, and we will then be in no danger of hearing any complaint about the productions of our farms "perishing in our barns and barn yards for want of a market." If, instead of sending off so much of our cotton in its raw state, we would send more of it off in cotton fabrics, we would realize all the benefits arising from its manufacture which are now enjoyed by those at a distance. By comparing the condition of those states that are engaged in manufacturing with that of those that are not, we may learn the good effects resulting from building and sustaining manufacturing establishments among ourselves.

It appears from a report, published by order of the General Assembly of Connecticut, that while 13,317,170 pounds of cotton were consumed in one year in that state, the value of three manufactured articles, cloth, yarn, and batting, was $2,984,384. Estimating the cotton at ten cents per pound, the cost of the raw material would have been $1,331,917, which being taken from the value of the manufactured articles mentioned above, would leave $1,652,467 as profits, after paying the expenses of its manufacture.

This cotton might easily and well have been manufactured in a southern state. Then the cost of transportation would have been saved, the profits would have accrued to the benefit of our own people, and all classes of the community, the merchant, farmer, mechanic, and operative, would all have experienced the happy effect of having this cotton manufactured at home. When we reflect upon the profitableness of this branch of industry, it is astonishing that no more interest is felt in it, and no more attention paid to it, in the cotton states.

A very intelligent gentleman, who was engaged in this business some years ago in Lawrence county in this state, F. Buchanan, Esq., formerly speaker of the House of Representatives, and a man of clear discriminating mind, sound judgment, and great practical infor-

mation, estimated the profits of a $25,000 establishment in that county at 16 per cent. per annum, and of a $50,000 establishment at 36 per cent., after deducting 2½ per cent. for insurance against fire; and he remarks, "we are astonished to see the increase of profits rising so *rapidly* proportioned to the capital." These estimates may seem to many extravagant, but the information of Mr. Buchanan was eminently practical, and his estimates may well be relied upon. It is proper to remark, however, that they were made when cotton was much lower than it has been during the last two years, and when, as a matter of course, the profits of manufacturing were much greater than they have been since. The high price of cotton has to a considerable extent diminished the profits of cotton manufactures during the last two years; but it is not reasonable to suppose that cotton will maintain for any great length of time the high prices which it brought during the two years preceding the crop that is now going to market. It is evident that the manufacture of cotton will be more profitable when cotton is selling at six cents than when it is selling at twelve, and in our estimates of the future profits of manufacturers, we may safely conclude that cotton will not command the high prices which it did last year and the year before. The falling off in the consumption of cotton in the Northern states during the last year is solely attributable to the high price of cotton, as is clearly shown by the fact that the 518,039 bales consumed in 1849 cost only $15,023,131, whilst the 404,108 bales consumed in 1851 cost $20,205,400. Although the quantity consumed in 1851 was decreased, the value was increased more than $5,000,000. From this we would infer that, so soon as the price of the raw material is reduced, the quantity consumed will be increased greatly, and such is the fact. The well informed commercial correspondent of the Washington Union, on the 27th of April, 1852, says, "The United States manufacturers are also more actively employed, and new mills are being constructed in many localities. The quantity of cotton taken by the United States manufacturers is already greater than for the whole of last year, not taking into account the quantities consumed in the interior of the South and West."

The number of spindles in Tennessee in 1840 was 16,813, and in 1850, 36,000, an increase of near 20,000 in ten years. Gen. James, of Rhode Island, estimates that 10,000 spindles will consume 4,500 bales of cotton per annum. If this be so, and we see no reason to dispute it, the number of spindles in Tennessee in 1850 was sufficient to consume 16,200 bales per annum. It is more than probable that there will be a greater proportionate increase during the next ten years than there was from 1840 to 1850.

Should this be the case, there will then be in use a sufficient number of spindles to consume near 40,000 bales of cotton per annum. Are these not reasonable expectations? Manufacturing has been found, by actual experience, to be more profitable than farming, for the man engaged in the latter often does not realize more than six per cent. upon his capital, whilst, according to Mr. Buchanan, the manufacturer often realizes from 16 to 36 per cent. Other sections have grown rich by manufacturing our raw material, and afterwards selling to us

the manufactured articles. Our labor is not sufficiently diversified. It is almost exclusively agricultural; and since, owing to our interior position, we are in a great degree cut off from market, our income is comparatively small. This is a highly injurious state of affairs, which we trust will not long continue. The remedy is, in building factories to consume our surplus agricultural products, and to furnish employment to our people. By pursuing this course a demand will be created for our surplus produce, and at the same time there will be a relative decrease in the number of those engaged in agriculture. How long, we may well ask, will it be before the people of the South will fully realize the importance of this subject? Coarse cotton goods, suitable for negro clothing, and cotton yarns, are the articles that our southern factories should, for a considerable time, be engaged in making, leaving to northern and European factories the manufacture of those finer fabrics which require more skill, capital, and experience than we at present possess, and which are not so much demanded by the immediate wants of the southern people. The advantages of our situation, our nearness to the cotton fields, and our superior natural facilities for manufacturing, render any protection from the general government, in the shape of high duties upon foreign imports, entirely unnecessary and highly injurious, even if the general government had the constitutional right to afford such protection. The South needs free and unrestricted commerce. Under a system of comparatively low duties, not only has the value of our great staple, cotton, vastly increased, but there has also been an increase in the value of cotton goods exported from the United States of near $4,000,000 per annum. The value of cotton goods exported from the United States in 1851 was $7,241,205, whilst it was only $3,545,481 in 1846, the last year of the restrictive policy. It is, therefore, evident that we, particularly of the southern states, should not feel ourselves dependent upon the general government for any aid to enable us to engage profitably in manufacturing. The true interests of the manufacturers in all sections of the Union require low and uniform duties upon foreign imports, and not those which are constantly fluctuating. No other than low duties can ever be permanent, and therefore manufacturers should advocate a system of moderate duties, and thereby avoid the evils consequent upon an ever-changing system.

Tennessee is not only admirably adapted to the manufacture of cotton, but woolen fabrics may be manufactured here with great success eventually. Large portions of the state, which would otherwise be of but little value, are well adapted to the raising of sheep. Mark R. Cockrill, of Nashville, an experienced and practical farmer, expresses the opinion, that as fine wool can be grown in the southern states as can be found in the world, and he says, that "all the cotton region is adapted to wool and sheep." In some places in our state there are large tracts of country where the lands are cheap, the population sparse, and the winters mild and open, and these are the portions of the state where we must expect sheep raising to be carried on successfully. The necessity for raising wool in the United States is apparent, when we remember that we imported 32,548,491 pounds

of raw wool during the year ending the 30th of June, 1851, besides the woolen fabrics which we imported during the same year, and which amounted to $19,396,709. The growth and manufacture of wool must become a business of much importance in Tennessee. Iron, also, must sooner or later become a great interest in this state. The hills and mountains of East and Middle Tennessee are filled with iron ore of the finest quality. Already there are many furnaces and forges in operation, and the number must increase with the increasing development of the country. When the immense resources of Tennessee shall be developed, her coal, her iron, and her marble, which have hitherto been locked up in her mountains, find an outlet to market, and her manufacturing power be brought into full use, then, indeed, will a new era in her history commence. Among the causes which have prevented Tennessee from engaging extensively in manufacturing, the most prominent has been the difficulty of getting the manufactured articles to market.

We need, and that greatly, good roads for the transportation of our produce to market. It has been well said that the "construction of good roads is the best evidence of the emergence of a people from a state of rudeness, and their improvement always keeps pace with the national progress in wealth, numbers, industry, and science." The greatest advantages arising from rail-roads are not the direct profits to the stockholders, though these are often great, but they are, if we may so speak, the incidental advantages. They improve trade, increase the value of real estate, stimulate industry, develop the resources of the country, and give diversity to the pursuits of the people.

In this way they confer countless benefits, and aid greatly in the onward and upward progress of a state. Having barely alluded to some of the advantages of rail-roads, the question is presented, what are we doing in Tennessee in reference to this matter? Are we fully sensible of the great interests at stake, or are we willing for "the forests and the minerals, the treasures above and beneath the surface, to remain unheeded?"

An act was passed by the legislature of Tennessee at its last session, providing for the issuance of bonds to an amount not exceeding $8,000 per mile, for the benefit of the East Tennessee and Virginia, the Chattanooga, Harrison, Georgetown, and Charleston, the Nashville and Southern, the Mobile and Ohio, the Nashville and Memphis, the Nashville and Cincinnati, the Nashville and Northwestern, the South-western, the East Tennessee and Georgia, the Memphis, Clarksville, and Louisville, and the Alabama and Winchester rail-road companies, so far as the main trunk roads to be constructed by said companies lie within the limits of this state. The bonds are not to be issued until a sufficient amount of bona fide subscriptions shall have been obtained to grade, bridge, and prepare for the iron rails, the whole extent of the main trunk lines to be constructed by each of the companies within this state, and until a section of thirty miles shall actually have been graded, bridged, and prepared for the iron rails. Whenever this is done, then the bonds

of the state may be issued, to an amount not exceeding $8,000 per mile, for the purpose of purchasing the iron rails, chairs, spikes, and equipments for the road, and for putting down the iron rails.

Thus it is with every additional section or sections of twenty miles, until the whole road is completed. It is made the duty of the companies to pay the interest upon the bonds, and to redeem them when they fall due. At the end of five years after the road is completed, it is made the duty of the company to set apart one per centum per annum upon the amount of the bonds loaned to the company, and to use the same in the purchase of the bonds of the State of Tennessee, which bonds the company shall pay into the treasury of the state after assigning them to the governor, and for which the governor shall give the company a receipt, and as between the state and the company, the bonds so paid in shall be a credit on the bonds issued for the benefit of the company. And the bonds so paid in, and the interest accruing thereon from time to time, shall be held and used by the state as a sinking fund for the payment of the bonds issued to the company; and should the company repurchase any of the bonds issued under the provisions of the act of the last general assembly, they shall be a credit as aforesaid, and canceled. The state is to retain a lien upon the roads to secure herself; and should any company fail to pay the interest upon the bonds issued for its benefit, provision is made in the fifth section of the act by which the road, with all its fixtures, equipments, and every thing pertaining thereto, is to be placed under the management and control of a receiver or receivers, whose duty it shall be to give bond and security to the State of Tennessee, in such penalty as the governor may require for the faithful discharge of his or their duty. And it shall be the duty of the receiver or receivers so appointed to continue in the possession of the road, its fixtures and equipments, and run the same, and manage the entire road until a sufficient sum shall be realized to pay off and discharge the interest due on said bonds, which being done, the receiver or receivers shall surrender the road, fixtures, and equipments to the company. Upon the failure of the company to pay the bonds when they fall due, provisions are made by which the road, with all the property and assets attached thereto, and belonging to the company, may be sold, and the proceeds appropriated to the payment of the bonds. These are some of the main features of the act, though it has many guards and restrictions which are here not even alluded to, and which can only be understood by examining the act itself. The provision which requires an amount of stock to be taken sufficient to grade and bridge the whole road before any bonds can be issued, is intended to prevent the aid of the state being granted to any work, unless there is some assurance that the whole road will be completed.

This is a wise provision, and will save the state from being connected with any road, which will only be commenced and carried on for a short distance, and then abandoned.

Guarded as this act is, the state is absolutely secure, unless the companies shall be unable to pay the interest upon bonds to the

amount of $8,000 per mile; nor would the state be in any danger of ultimate loss unless the roads, with all their property, should be worth less than $8,000 per mile, and even in that event the amount of loss which the state would sustain would only be the difference between $8,000 per mile and the amount which the roads would bring when sold, which could not be but trifling. This could not occur until the individual stockholders had lost *all* that they had invested. It is not reasonable to suppose that men of ordinary shrewdness will engage in any undertaking where they will be likely to lose *all* that they have invested. There need not, we think, be the least apprehension that any of the roads mentioned in the act passed by the last Tennessee Legislature, "to establish a system of internal improvements in this state," which will be built, will be unable to pay the interest upon bonds to the amount of $8,000 per mile, and to pay those bonds as they fall due, if, as we sincerely hope may be the case, the roads shall be well graded and prepared for the iron. The greatest source of apprehension is, in our judgment, that a sufficient sum of money may not be expended in grading, bridging, and preparing the road-bed for the reception of the iron, and, as a consequence, the road after it is completed will be of a very inferior character, if not wholly worthless. The object should be, to make a good grade, and to prepare the road well for the reception of the iron rails. To do otherwise, would be but little wiser than to expend a large sum of money in fitting up the interior of a building, the walls of which were unsafe and liable at any time to fall down. The danger is, that companies, in order to avail themselves of state aid, may be content to spend a less sum in doing the local work of the road than is absolutely necessary to make a good road. We think the estimates which are made by some of the cost of grading, bridging, and preparing for the iron rails of many of our Tennessee roads, are entirely too low. If the roads are made as they should be, they will cost more than many of their friends estimate; and unless they are so made, they will neither be advantageous to the country, profitable to the stockholders, nor will the interests of the state be safe. The sum of $8,000 per mile is thought to be sufficient to iron and equip the roads after they are graded. This is, perhaps, true; we see no reason to question it. What then will it require to prepare the road for the iron? This must depend greatly upon the character of the country, the nature of the obstacles to be overcome, and a variety of such things, which can only be determined by a skilful engineer, after an accurate survey. It is thought that $5,000 per mile will be sufficient to prepare many of the roads in Tennessee for the iron rails. This is, we think, a great mistake, if the object be to make a first class road, and to no other should the aid of the state be granted. The local work on the Mobile and Ohio road is estimated at more than $9,000 per mile, and the entire cost of that road is estimated at $18,261 per mile. The local work upon the Selma and Tennessee River Rail-road is estimated at near $8,000 per mile, and the entire cost of that road is estimated at $3,887,695, or something over $18,000 per mile. These two roads have been selected, because t is believed no roads in Tennessee can be graded much cheaper than

they can, because the regions of country through which they pass are as favorable to a rail-road as any portion of Tennessee. We do not deny but the roads may be built for less money; but in the end we think it will be found to have been false economy to have expended upon any road in Tennessee a less sum than $18,000 or $20,000 per mile. By all means, no road should have less than $15,000 per mile expended in its construction, if we wish to have good roads.

In view of these estimates, if individuals are willing to come forward and take stock to the amount of $8,000 or $10,000 per mile, can there be any danger that the $8,000 per mile loaned by the state will be lost either in whole or in part? Surely not. If the road should yield only two or three per cent. upon its entire cost, that would be sufficient to pay the interest upon the bonds issued by the state for the benefit of the company; and if, upon a failure of the company to redeem the bonds as they fall due, the road should be sold for only half its entire cost, the state would sustain no loss. We think that in no instance ought the amount loaned by the state to exceed the amount actually expended by the company. If it should only cost $5,000 per mile to prepare a road for the reception of the iron rails, and an additional $8,000 per mile to iron and equip the road, we think the company should itself expend $6,500 per mile, and then the state might loan the remaining $6,500 with which to complete the road. Whenever a road can be graded and prepared to receive the iron at such cheap rates as four or five thousand dollars per mile, the persons interested in that road ought not to wish the state to loan them $8,000 per mile, nor is it their interest that it should be done. The less money that is borrowed, the less will have to be paid back; and if a sufficient amount of subscription could be obtained to iron and equip the road, as well as to grade it, it would be much better that this should be done, and no aid be obtained from the state at all. But the difficulty is in obtaining a sufficient amount without asking the aid of the state. This assistance should be as little as possible. The number of miles of rail-road to which the aid of the state is granted by the act of the last legislature of Tennessee is about 1,000, and if bonds to the amount of $8,000 per mile should be loaned to all of these companies for the whole extent of their roads, the amount of bonds issued would be about $8,000,000, the annual interest upon which would be $480,000. Although we believe the companies themselves would be fully able to meet the accruing interest upon these bonds, and to pay them when they fall due, yet we would not be willing to see Tennessee bonds issued to such a heavy amount, because we think the effect would be to cause a depreciation of those bonds. This would operate injuriously to the companies, and disadvantageously to the state. Nor need there be any apprehension that there will be much more than half that amount of bonds issued. Many of the companies will not be able to bring themselves within the provisions of the act. We would have been glad, however, if the number of roads mentioned had been reduced, or the amount of aid granted had been

limited to five or six thousand dollars per mile, for then, we think, all the important roads would have been built, and those only of questionable propriety have been abandoned. Tennessee does not *at this time* need all the roads mentioned in that act, however it may be in future. Every state should be willing to extend its aid to great works of improvement; but this should be done in such a manner as to avoid all danger of taxation by the state for this purpose. We do not think that those who are to be only indirectly benefited by such works should be taxed for the advantage of those who are more immediately and directly interested; but the state, by the judicious use of her credit, may aid these important works without incurring any danger of a resort to taxation, and to such a course there could be no reasonable objections.

If the aid of the state should be granted to only a few leading and important works, the aid might with safety and propriety be extended to $8,000 per mile; but if it should be granted to an almost indefinite number of roads, then the amount should not exceed five or six thousand dollars per mile, and in this way all unnecessary roads would be cut off. Even if a state were to loan its credit to the extent of one-third the cost of the roads within its territory, this would be much more liberal than some states are which are deeply interested in this matter. The companies might be required to raise and expend two-thirds of the amount sufficient to make the road, and the state might safely loan the remaining one-third, taking a lien upon the whole road to secure herself. Any who would be opposed to a state going thus far, certainly would not consider themselves friends to internal improvements. The state has a deep interest in this matter, for as the wealth of the state is increased, the amount o revenue is increased, and that without any increase of taxation.

The taxable property of Tennessee is estimated at one hundred and fifty-nine millions of dollars, and after her rail-roads are completed, it will not be less than two hundred millions, and probably much more. Thus it will be seen, that without any increase of our taxes, we will derive much greater revenue than we now receive; and in fact, we may safely say, that if the state had the whole $8,000,000 to pay, she would, as a state, be richer than she now is. Still, it would not be right for some portions of the state to bear the burdens, whilst others derived the benefits, and therefore we are opposed to taxation by the state for building rail-roads. If rail-roads could be built without any state aid, we would prefer that it should be done; but these works, great in their cost, as well as great in their benefits, must receive some assistance from the state, or they will be unreasonably and ruinously delayed. There need be no fears that the bonds issued by any southern state for the benefit of any rail-road company will be required for the whole extent of the road at once. They will be issued gradually, as the road progresses, and there will be no heavy issuance of bonds at one time. The longer the great works of improvement are delayed, the worse will it be for the southern states, and the longer will they be retarded in the increase of the wealth and population. Those who are most opposed to inter-

nal improvements by the general government, should be most in favor of the aid of the state being given to these works, for if they receive neither aid from the states, nor the general government, many of them must be abandoned, not because they are not needed, but because the means cannot be obtained to build them. Georgia has set an example worthy the imitation of her sister states. Although with no more natural advantages, she is far in advance of many of them, solely on account of her internal improvements. She has grown rich and powerful, and is still growing more so, by a judicious expenditure of money. She has not been afraid to spend hundreds, when by so doing she could gain thousands. She is not, as some of her sister states, "penny wise and pound foolish." The southern states are yet in the infancy of their development. Their mountains and their streams, which have been heretofore almost valueless, are to be the main sources of their wealth. Whether the southern states shall occupy the proud position to which their natural advantages entitle them, and shall enter upon a splendid career of improvement, depends in no small degree upon the action of their respective legislatures during the next two or three years.

Tennessee has led the way, and if they think she has gone too far, as perhaps she has, let them do something towards furthering these great works which all true southern men have so much at heart. In regard to county and city subscriptions to rail-roads, we have only this to say, that we would prefer that the stock so taken should be set apart for county or city purposes, such as the support of the poor, the education of the children, the building of bridges, improving the streets, and all other objects of a similar nature, instead of being divided out in proportion to the amount of tax paid by each one for building the road. The stock taken by the county or city should belong to the county or city, and the dividends arising should be appropriated under the direction of the proper authorities for the benefit of the county or city. By making this stock a county fund, all persons in the county will be benefited by it, and especially those who need the assistance of the county. It may be made a permanent school fund, and the dividends declared by the company upon that stock might be sufficient to establish an excellent system of common schools in the counties, cities, and towns where the stock was taken. In this way, it might be of even more service than in building the rail-road. To divide this county subscription into certificates of stock, and give to each man in proportion to his rail-road tax, and then make these certificates receivable by the company in payment of passage or freight, we think highly objectionable. It would be imposing too great a burden upon the companies in the first years of their existence, to require them to take in all the stock taken by counties and cities, and would perhaps leave nothing to pay the interest upon the state bonds issued for their benefit. We have given our views freely and fully in regard to the action of our last legislature upon this subject, and whilst we see much to admire, we cannot entirely approve of all that has been done. We fear the legislature went rather too far, though we hope no bad consequences

will result, and that whatever may be found to be wrong will be amended by future legislatures. The action of our last legislature will tell upon the future destinies of our state; and we sincerely hope that all may be well, and that those who secured the passage of the internal improvement law, will be found to have contributed much to the growth of Tennessee in wealth and population, and to the development of her boundless resources.

ART. V.—OVERFLOW OF THE DELTA OF THE MISSISSIPPI.

REVIEW OF CHARLES ELLET'S REPORT ON THE OVERFLOWS OF THE DELTA OF THE MISSISSIPPI.

This report is the best paper yet published upon the subject. The author brings new facts, new theories, and ably sustains himself in his assumed positions. He is the originator of a new system, which has for its object the prevention of inundation, and the prolongation of low water navigation in certain rivers. Mr. Ellet's report on the Ohio River is entirely convincing.

The reservoirs that he speaks of may be found upon the Ohio, or its tributaries; but whether there can be found eligible sites for similar ones upon the other tributaries of the Mississippi, or whether a sufficient number can be obtained to have any appreciable effect upon that river, admits of doubt. Mr. Ellet's prejudices, as the originator and advocate of a system, it is feared, have in some degree influenced his judgment, and affected his conclusions. His report is valuable, because, if generally read as it should be, it will be the means of throwing new light on this, to many, vexatious subject. It will lead to discussion, criticism, and in the end, to correct conclusions. It is a herculean task to dispel a popular prejudice, and the people generally are prejudiced in favor of outlets; principally, because they are averse to the construction of larger levees, and conceive that all that is necessary to make an outlet is to cut the levee, and let off the water from the river. This, in reality, *is* the sum total of the whole matter. A *crevasse* is considered by all a public calamity—a great disaster; but, call it an *outlet*, and its objectionable features are all removed; it would be a public benefit, a great good. It is believed by us, that an efficient levee system is our only reliance, and a safe one.

Mr. Ellet endeavors to prove that levees are insufficient; that outlets are unavailable to a sufficient extent; and, as a consequence, that we must adopt his "reservoirs." We accept his facts, admire his reasonings, but beg leave to differ from his conclusions. He *assumes*, as the very foundation of his whole report, in the first paragraph of his introduction, that the overflows are more frequent and more extensive, in recent than in former times. He *assumes* that the river rises *higher* in recent than in former times. We deny the truth of this at the outset, except in so far as the height of the river is affected by cut-offs, which undoubtedly raise it, by shortening the plane of descent, at an intermediate point. That we have more frequent, and, perhaps, more extensive *crevasses*, is admitted. We could not well have crevasses before we had *levees*. The overflows *were* more extensive before levees were made than now. These crevasses are occasioned by an increased height of water due to the Raccourci cut-off; by the general neglect and inadequate size of the levees as now made—

the absence of any system of leveeing—the procrastination which postpones the construction of new levees until the very last moment—the false economy which seeks to save a narrow strip of land, by erecting the levees on the very brink of the bank—by the crawfish which perforate the levees; and last, but not least, in the catalogue of causes, by the increased number of timber pirates, irresponsible persons, non-residents, who cut the cypress timber from the public lands during low water, and *cut* the *levees* to get their timber out of the swamps, and to a market, during high water. We are well assured, from good authority, that Grand Levee was cut in this way, and that other crevasses have been made in like manner. These persons cut their timber in such places that a crevasse, and consequent overflow, is necessary (to them) to enable them to get it *out*. They calculate upon crevasses, and crevasses occur at the time and place best suited to their interests.

We have been informed of a certain party of these gentry, who are now cutting, or have cut, from two to three thousand tier, on the lands belonging to the state, and who openly boast that there are not men enough on the Mississippi to prevent a crevasse occurring this year, because a crevasse is necessary to enable them to float out their timber. It is not the citizens of Louisiana who do this; they have other interests which prevent their acting in this manner; they cultivate the soil, and are willing to purchase the swamp land, and get the timber in a legitimate manner, provided they are protected from this unfair competition.

These are the reasons why we have more crevasses now than formerly —reasons which are generally lost sight of, because they are more practical than philosophical.

We maintain, that, independently of cut-offs, the river does not rise higher now than formerly. Prof. C. G. Forshey, than whom no one is more intimately acquainted with the "physics of the Mississippi River," having made it his study for many years, and having made many extended series of observations and measurements, assures us that the average for every decennial period from 1820 to 1850, shows a diminished instead of an increased rise. The average rise from 1820 to 1830, was greater than from 1830 to 1840, and still greater than from 1840 to 1850. All the facts which have come to our knowledge, as well as our own observation, convince us of the truth of Prof. Forshey's results. Prof. F. is of the opinion, that the extension of levees has the effect to *lower* the river, by causing it to excavate a larger channel, in which it can accommodate a larger body of water than before.

Colonel Philip Hickey purchased and took possession of his estate, about four and a half miles below the town of Baton Rouge, in 1802. There was at that time a levee constructed before his place, against which he landed at high-water at the time he took possession. There was then no levee above him nearer than Pointe Coupée; and below, the nearest was in the vicinity of Donaldsonville—no levee above the mouth of Red River.

Mr. Ellet quotes the reply of the late John McDonough to the questions proposed by the joint committee of the legislature:

"When he [John McDonough] first traveled the banks of the Mississippi, fifty years since, on horseback, he was forced to swim his horse across at least twenty or thirty bayous—some of them from fifty to sixty feet in width—which crossed the path he traveled, and entered the Mississippi." "These bayous were on the west bank, between bayou Plaquemine and Red River, and have all been closed in the progress of improvement." These outlets existed everywhere on both banks of the river. Col. Hickey has resided on his estate since 1802; he assures us

now, that his levee is no higher than it was then—that it has not been raised an inch—that it is the same levee, and that the water rises no higher against it now than in 1802. The levees now extend to the state line of Arkansas, and the river rises no higher than before.

If *closing* the outlets will not raise the river, how is it that the construction of new outlets will lower it? Old residents upon the river in Pointe Coupée and elsewhere, assure us that their experience is the same as Col. Hickey's.

Our present governor, Jos. Walker, says: "Many years ago he resided in Natchez; then, there were no levees above the mouth of Red River. At that time it was proposed to extend the levees from the mouth of Red River to the state line. Immediately engineers, mathematicians, and others, made examinations, measurements, and reports, showing, beyond the possibility of doubt, that if all the water which then overflowed the banks of the river, between these points, was confined to the channel, the river below would be raised *fifteen feet* above the tops of the levees—that lower Louisiana would be totally and irretrievably ruined. They proved it to a demonstration in the *same manner* Mr. Ellet has now done." The levees *have* been extended to the state line, far above, and the river rises no higher than before—not one inch. On the contrary, notwithstanding we have had the levees extended, the Red River and Raccourci cut-offs made since, the highest water-mark of 1851, (of late years the highest *below* the cut-off,) is still three and a half inches below the mark of 1828, at Baton Rouge. Before levees were made the river was *full*, and water enough escaped over its banks to overflow *all* the alluvial lands from the mouth of the Ohio to the Gulf of Mexico. The river rose as high then as now, notwithstanding the loss. The *whole* of the water is *now* confined to the channel of the Mississippi, (Atchafalaya, Plaquemine, and Lafourche, excepted of course,) through this state, and yet it is denied by many that the river enlarges, increases in capacity as the levees are extended. Mr. Ellet says we cannot depend upon the progressive enlargement of the river; it does not enter into a single calculation of his; all his estimates of the effect of an increased amount of water confined to the channel, are based upon *the present* capacity of the Mississippi.

All the alluvial lands of Louisiana have of course been formed by deposit of sediment; to have been created, they must have been overflowed when there were no levees. The water then was above all the highest points on the river. The river barely rises above these points now. How is this, if the extension of levees causes a permanent rise? The enlargement of the river has thus far kept pace with the extension of levees.

With all due deference to Mr. Ellet, we maintain that the river *does* regulate its own channel exactly to correspond with the amount of water it is called upon to convey—that the channel increases in capacity with the increase of water retained in the river—that it diminishes to correspond with the amount drawn off through outlets or crevasses, and that its height is not permanently increased by the extension of levees. That cut-offs have the effect to raise the river below, there is no doubt, by shortening the plane of descent. This effect will not be lost until the former length is regained by the caving of the bends, and is independent of the scouring power of the current. Col. P. O. Hébert, then state engineer, reasoned ably upon this point when the Raccourci cut-off was in contemplation. His remonstrances were of no avail, but subsequent disasters have proved the correctness of his views. The high-water mark of 1828, at Baton Rouge, was three and a half inches above that of 1851, (the highest since,) and above that of 1844. My information on this point was

obtained from the Messrs. H. and W. G. Waller, of Baton Rouge, engineers, whose accuracy is unquestionable. Mr. Ellet endeavors to explain how and why the water-marks at some points are higher than they should be, to harmonize with his own views. He succeeds perfectly when he selects a bend such as the Terrapin Neck, where a strong wind from N. W. may blow up as well as down the river, thus accumulating the water in the bend, and causing it to rise higher, temporarily, than the general plane of descent. But no wind can effect a rise of this kind at Baton Rouge. The rise of 1828 was prior to the Red River and Raccourci cut-offs. The fall across the neck at Raccourci was four and a half feet, giving an increased rise of two and a quarter feet on the lower end of the cut-off, and at Baton Rouge about eighteen inches. The Red River cut-off shortened the river nearly as much as Raccourci—say twenty two inches at the lower end of the cut-off, and in consequence of the increase of distance since the cut-off was made, by caving of bends, and forming of points, only one foot at Baton Rouge. We now have the Red River cut-off, one foot; the Raccourci, one and a half, and three and a half inches excess of '28 rise over '51; in all, two feet nine and a half inches. Thus we see that the '28 rise was in reality two feet nine and a half inches above that of '51. The '44 rise had the Red River cut-off in its favor, say fifteen inches, (then,) but was still several inches below the rise of '28. The '28 rise was therefore about two feet above the great rise of '44. We now see that, notwithstanding there were no levees above Red River and many vacancies below, still, *with all these outlets*, the river rose two feet higher than in '44, and near three feet higher than in '51. Why is this? We answer: the river is larger than it was in '28—both wider and deeper—it can accommodate and carry off more water now than formerly. Before levees were made, a channel, suitable to a medium stage of water, was sufficient; the water needed not a larger channel; the surplus water escaped over the river banks, and inundated the back lands.

Mr. Ellet tells us, (page 67,) that, "to excavate a channel through a soil of given texture, and to keep the same channel open when so excavated, are two distinct things, implying very different applications of force." He says further: "The Atchafalaya and the Plaquemine have probably been open for ages, and yet, unaided by art, they have been found unequal to the task of increasing the depths of their channels, or enlarging their respective water-ways. On the contrary, the Atchafalaya [in his opinion] seems to have been contracting its original width for a great many years." Mr. Ellet intimates that, whereas the Atchafalaya and Plaquemine have not enlarged *their* channels, so would not the Mississippi. The writer thinks he has proved to the minds of every unprejudiced person, that the river has increased in capacity, so far, with the extension of levees. Why will not the increase of capacity continue with the further extension of levees? Mr. Ellet has erred in his conclusions with regard to the Plaquemine and Atchafalaya. Only forty years ago, the bayou Plaquemine was barely twenty-five feet wide, and from fifteen to twenty feet deep. It was common to cross it on foot logs then, and the cane and brush on either bank interlocked over the water.

Mr. Lloyd Wilcoxson, a planter upon bayou Vermillion, and a member of the convention which framed our present state constitution—a gentleman well known in Attakapas—informs us that thirty-five years ago he passed down through the bayou Plaquemine in a flat-boat but twelve feet wide; he says that at many places in the bayou he could step from the gunwale of his boat upon the bank of the bayou on either side. He assures me that there was not more than three feet to spare between the sides of his boat and the banks on either side, and that he was obliged to keep the cane

and brush, which formed a complete arch overhead, from striking him in the face, by constantly putting them aside with his hands.

It is well known to the old settlers, residing upon the banks of the Plaquemine, that this bayou, forty years ago, was but from twenty to twenty-five feet wide. The stumps in the bed of the Plaquemine have been cut down three different times as low as the bottom of the bayou would permit. Once, they were cut about seven feet. They need cutting again at the present time. Art has done nothing for the channel of the Plaquemine but cut these stumps. The bottom of the Plaquemine is of the stiffest kind of clay, and filled with cypress stumps, but nevertheless it has increased in depth to thirty and forty feet, and in width from 25 to 200 and 250 feet, and is increasing rapidly every year. The cypress stumps over the entire bed of the Plaquemine, as well as the appearance of the country back, which is low—the streams having low banks—show conclusively that this bayou, instead of having been "open for ages," or an original *pass*, as generally supposed, is of comparatively *recent* formation, and in reality but the development of one of the lateral drains from the river. Cypress trees never could have grown over the bottom of an original pass of the Mississippi. The bottom of the Plaquemine is *paved* with cypress stumps. The Plaquemine falls into a flat, swampy country, within a few miles. The valley of the Atchafalaya approaches nearer to the Mississippi at this point than at any other. The bayou Lafourche is evidently an original pass. There are no cypress stumps in its channel; its *delta* comprises the bayous Terrebonne, Petit Caillou, Grand Caillou, Black Chickahoula, &c. Having existed for ages, it has *filled* its swamps, and extended itself to the Gulf. Not so the Plaquemine.

With regard to the Atchafalaya, the facts are these: before the *old raft*, which was several miles long, very compact, and almost a perfect dam, was removed, and before the Red River cut-off was made, the Atchafalaya undoubtedly did diminish in size, as was very natural; the current being almost entirely checked by the raft, and the water, coming directly from the Mississippi, being loaded with sedimentary matter. The loss of current occasioned a deposit of sediment, and bars were formed above the raft. Does this imply a want of scouring power in a current? We do not expect the water to scour out rafts! Since the raft has been removed, notwithstanding the Atchafalaya has been cut off from the Mississippi, it is well known that it has been uniformly and steadily increasing in width and depth.

Mr. Ellet has made of the Raccourci cut-off one of his strongest arguments against the scouring power of the river. He says: "If the cut-off, after having been exposed to the action of the water for three years, is still one-third less than the river above and below, how can we expect the river to increase its channel with the extension of levees?" This seems plausible, and might be considered an unanswerable argument, by those who are unacquainted with the cut-off and vicinity; but the cut-off is in reality an argument *against* Mr. Ellet. The cut-off is one-third less than the balance of the river in capacity, for the reason that *one third less water* passes through it, at a high stage, than through the river above and below. The cut-off is essentially a low water channel—there are no *bars* in it—the banks are bluff on both sides, and the depth very uniform.

When the river rises to within about ten feet of the top of its banks, the water *above* the cut-off escapes over the sand bar into the old Raccourci bend, and during high water, not only around the old bend, and over the Tunica bend below, but over both sides of the cut-off; on the west over Raccourci Island, into Lake Darby, &c. Fully one-third of the high

water is thus diverted; and, because the water is spread over a region several miles wide—because it has *outlets*, and is not confined to the channel—the cut-off does not enlarge. Does this imply a want of scouring power? Were the upper end of the old bend, and each side of the cut-off leveed, and all the water confined to the channel of the cut-off, we should soon find that it had power sufficient to scour out a channel equal to that above and below.

Mr. Ellet also instances the Bonnet Carré crevasse, to show the want of scouring power. He says: "Although the current was long-continued and very powerful, the cane ridges next the river still remained after the river had subsided." This is true, but not all. Mr. E omitted to state that *three channels were* excavated for a short distance into the fields; and further, he says nothing of the caving in of the excavation next the river, as the water subsided. The soil of this locality, as well as that without all the *bends* on the river, is of a very tenacious and unyielding nature, and becomes, when exposed to the action of water, almost of the consistence of putty. In all crevasses, a channel of greater or less depth is excavated next the river, when the water is concentrated; but as soon as the water has passed the break or opening in the levee, its power is lost, for the reason, that it has space to spread and become shallow. This crevasse was very wide—about three-fourths of a mile; and, compared with its width, its depth was very little—but five feet. The water not being concentrated, it is not at all strange, that a large channel was not excavated.

Mr. Ellet's reasonings and examples of the *want* of scouring power, are not ample, because he selects instances where the water *is not* confined or concentrated. We admit, that if the water has liberty to *spread*, and is not *confined* by levees or otherwise, it will fail to excavate.

Mr. Ellet *assumes*, (he does not attempt to prove,) that "a *much* greater power is required to excavate a new, or enlarge an old channel, than is needed to *maintain* such a channel after it is once opened." In a river like the Mississippi, holding in suspension such a vast amount of earthy matter, it certainly is not the case. The moment the current has lost the power to excavate—and *caving* in this sense is but excavation, because the banks would not cave, unless *undermined*—the water will become clear, because the *supply* of earthy matter must be kept up, to keep the waters muddy. Although excavation is constantly going on, even when the supply of water is the same; still the current and quantity of water regulate and maintain a uniformity in the *size* of the channel. It may be deeper, or more shallow, than before, but with an increase of depth on one side of the river, we have the formation of a bar on the opposite side, which makes the channel narrower, and "vice versa." We can, therefore, readily see that a gradual increase in the quantity of water gradually *increases* the *extent* of the caving or excavation; we do not mean to say that the excavation is *renewed*, but it is simply *increased* to make room for an additional supply of water.

Will it not, therefore, be plainly seen, that this scouring power *always exists?* Were we to take away one-half or two-thirds of the water from the Mississippi, the scouring *power* would still *exist;* we should only have *diminished* the power, and allowed the formation of bars in all places, except where that power was applied. If there is no scouring power, how is it that the Mississippi *changes* its channel by excavating its bends? When we say that the scouring power will regulate the capacity of the channel, we are giving no *new* power to the river; not giving it what it had not before the construction of levees. We only say that the scouring power will be *increased* or *diminished* with the *increase* and *diminution* of the quantity of water. Is there any thing contrary to the laws of nature

in this? The scouring *power* still exists at the lowest stage of the Mississippi, otherwise, how could the excavation continue in the bends, or the water remain discolored and muddy? It is a law of nature, that the size of the channel is regulated directly by the quantity of water it is forced to convey, and the very instant the scouring power or current (they are the same) which excavates and holds up, or suspends its earthy matter is diminished, by outlets or crevasses, that instant the earthy matter is dropped, forms bars, and contracts the channel. Can it possibly be otherwise?

Mr. Ellet says: "We can make outlets until we *approach* the *unknown* limit which represents the *difference* between the volume needed to create and that needed to maintain the channel." He means that we can draw off by outlets a quantity of water *equal* to the *difference* between these powers, before the river channel will begin to diminish. There is no difference, no latitude *between* these powers. One begins where the other ends, and ends where the other begins. Mr. Ellet's own data show that the channel below is diminished by outlets. He gives the cross section of the river *above* the Bonnet Carré Crevasse, at 198,734 square feet, and immediately *below*, at 152,443, showing a diminution of 46,291 square feet. He estimated the cross section of the crevasse, at 43,500 square feet. We see here that the diminution of the channel immediately below (and this effect occurred after the crevasse was formed) corresponds very nearly with the cross section of the crevasse. The same result was found at the Sauve crevasse, and will be found at every other. Were these crevasses permanent outlets, the channel would be permanently reduced through all the distance below. Of what use, then, are outlets? We might go on making them until we had submerged all the alluvial lands in our state, and still but have restored the old order of things. The river would rise as high as now. Those *unfortunates* who *owned* lands in the interior, would be obliged to build and retreat to *mounds* during high water, as did the ancient inhabitants of the soil. We will give one more instance of decrease of channel consequent upon a decrease of water. Berwick's Bay and the lower Atchafalaya convey to the gulf all the water escaping from the Mississippi above Lafourche on the west. Formerly the water rose above all the lands on the Teche. Grand Lake *then* was several feet higher than it was during the crevasses of 1849 and 1851, when part of the Teche, and a great part of several parishes, was overflowed. Then the scouring was much greater than now, even during the crevasses referred to above. The extension of levees on the Mississippi caused a decreased amount of water in Berwick's Bay. We accordingly find a corresponding decrease in the capacity of the channel. The hard bottom, indicating the old channel, is covered many feet deep by a deposit of soft mud, through which the sounding lead sinks.* This mud is from the swamps, and from the bottom of Grand Lake. The Mississippi water deposits most of its sediment before it reaches Berwick Bay.

If a *much* greater power is required to excavate than maintain a channel—and, as we have shown, the Mississippi is now just able to maintain its present channel—how high was the river when it *excavated* its present channel?

An outlet is recommended into Lake Borgne. We admit that an outlet could be made here, with less injury to the planting interests, perhaps, than at any other point; but as it is all-important that an increase, instead of a diminution of the depth of water on the bars at the mouth of the

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* From soundings and measurements by Prof. C. G. Forshey.

river should be obtained, the writer contends that outlets are not only useless, but positively injurious, inasmuch as they would diminish the amount of water, and consequently the depth on the bars. This depth on the bars at the mouths of the passes, is a subject of vast importance to New-Orleans; her vitality depends upon it, and her interests should not be jeopardized without due deliberation. Every foot of increase in depth on said bars is worth millions to New-Orleans; and every diminution a corresponding loss. It has been said that on account of there being a greater depth on the bars at low, than at high water, the loss by outlets or crevasses would have no effect. This reasoning is, however, fallacious. The depth on the bars at high-water, the aggregate of the cross-sections of all the passes, bears an exact relation to the body of water, current, and quantity of sedimentary matter maintained at a high stage of the river. At a low stage there is scarcely any fall in the river from New-Orleans to the gulf; and, indeed, it not unfrequently happens that the gulf during high tides, consequent upon south or south-easterly winds, is higher than the river-surface at New-Orleans. Vessels *have* been *floated* up stream from the third to the second municipality wharves. There being very little sediment carried to the Balize, in consequence of the sluggish current, little or no addition is made to the bars at low water, and even this is of nearly pure clay; the sand being heavier, is deposited above. The constant passage of steamers, ships, and other vessels, agitates the sand and mud forming the bars; and the constant influx and reflux of the tides at low-water, cause this mud and sand to float off into deep water outside. The concentration of the water at a low stage excavates a narrower but deeper channel than we have at high-water. The *average* depth will be found the greatest at high water. The sand is deposited upon the bars at high-water, and carried off at low-water. The clay is deposited at low-water as well as high, and accordingly we find the bars composed of clay, more or less indurated. It is, therefore, easily seen *why* we have deeper water on the bars at a low, than at a high stage of the river.

Should the depth on the bars be reduced one-third by outlets, at high-water, the low-water depth might still be greater than the high, and yet one-third less than the present low-water depth. Again, if it were possible to concentrate the water into two passes, we should gain a depth through the bars of these two, of from 20 to 30 feet.*

The low-water depth even in this case might be greater than the high, and still the truth of our position be unshaken, that outlets will lessen, and levees increase the depth of water in the passes.

There is yet one other argument to rebut. It is said that Iberville found a depth of 17 feet on the bar at the mouth of the Mississippi. Since, we have had levees extended to the state line, and more water discharged by the river. Why is there not a greater depth consequent upon this? Mr. Ellet informs us, that the mouth of the river advances into the gulf, at the rate of one mile in twenty years. Since Iberville's time, then, the embouchure has advanced seven and a half miles. This would make a vast difference in the aggregate width of the passes. At that time the water was more concentrated than now; it follows that a less amount of water would give as great a depth as now.

Mr. Ellet *assumes* that the bars are not formed by deposit from the

* The writer devised a plan for accomplishing this, some three years since, by the artificial formation of rafts in the smaller passes—said rafts to cause a deposit, destruction of current, and consequent filling up of the passes selected. This plan was submitted to Maj. Barnard, U. S. Corps of Engineers, and was approved by him.

river, but are washed up from the gulf by a "refluent under current, which is set in motion by the outpouring floods of the Mississippi." He says there is a current of salt water running *into* the river, underneath the fresh water, which is going out, and that this current washes up the mud and sand, and forms the bars. But the truth of the matter simply is—that *there is no* such current. Many hundred trials of the currents, in all the passes, at all depths, and at all times of tides, were made by Prof. Forshey, and not a single instance of any such current, nor any current but an outward one, was found.

Although Mr. Ellet advises a system of outlets in strong terms, he is rather at fault when he proceeds to point out *where* to make them. He advises the outlet into Lake Borgne, but tacitly admits, that while this will do no good above, or at most, but for a short distance, he can recommend no other *new* outlet. He advises the enlargement of the Plaquemine to four times its present capacity, but does so with hesitation, because he cannot but be aware that it is a question of *expediency*, at best, whether we shall sacrifice the richest part of Attakapas, to the river interest, or not. In other words: we are to regulate the *size* of this outlet, or the *extent* of the enlargement, by the *size* of our purse, and *extent* of the damages. The writer admits that the coast planters will be benefited by outlets in but one way. Outlets would lessen the caving of the banks, hasten the formation of battures, and diminish the cost of maintaining levees, by lengthening the periods of their renewal. The extension of levees would, and will, have the contrary effect. Thus far it is the interest of the Mississippi *planter* to advocate outlets. It will be a war of interests. New-Orleans and Attakapas *versus* the Mississippi Coast. A compromise *may* be effected, and outlets to a very limited extent, in connection with strong levees on the river, be the result.

Mr. Ellet says, (p. 74,) that there can "be no *reasonable objection* offered to increasing the draught through the Plaquemine until this bayou discharges into Grand Lake a column equal to that which is ordinarily received by that basin from the crevasses in the levees;" or again, "to increase the Plaquemine until it can be regarded as a *reliable substitute* for those *disastrous* crevasses, by which the channel is now annually relieved." Now, as a portion of the Lafourche, Black, and Teche, the whole of Grand River, Belle River, Sorrel, Pigeon, Chene, Grand Bayou, &c., &c.; in short, a large portion of the parishes of Iberville, Assumption, Terrebonne, St. Mary, St. Martin, and West Baton Rouge, were overflowed by those disastrous crevasses, we are told that no *reasonable objection* can be made why we should not permanently overflow the same extent of country, by the enlargement of the Plaquemine. What say you, people of Attakapas? Can you make no *reasonable* objection why your plantations should not be converted into swamps, or annually overflowed? In addition to the Plaquemine, which is to be enlarged until it can discharge upon you a body of water equal to *all* the crevasses, we must have the Atchafalaya enlarged to its utmost capacity, indeed, to *three times* its present size. Were these counsels followed, there would not be an acre of dry land in all Attakapas.

But a thin stratum of clay, from three to four feet thick, divides the bottom of the Plaquemine from the quicksand beneath. Although we believe the apprehension (of some) that the Mississippi will abandon its channel, and take this route to the gulf, to be absurd; still were the Plaquemine widened to six or eight hundred feet, and this thin stratum of clay removed, (it soon would be by such a current,) this outlet—with a fall ten times as great as the Mississippi, and a quicksand bottom to work

upon,—would be rather more difficult to manage and regulate than Mr. Ellet appears to imagine.

Mr. Ellet says we cannot be permanently protected by levees; he advises outlets. The outlets, if made, would involve a loss of many millions worth of property, to do any good at all to the river. We could not possibly levee in the outlets—this is perfectly impracticable, as any person acquainted with the country will admit, and Mr. E. does not deny. The development of the outlets, as recommended, would involve the expenditure of millions. The same amount, or perhaps less, would construct reservoirs sufficient to keep back the water, and preserve us from overflow. We, of course, must choose the reservoirs, in preference to converting one half our state into swamp. If we *were* certain to be overflowed, these reservoirs might be our salvation, *provided* suitable sights could be found for them.

The writer, as well as other engineers in this state, dissent entirely from Mr. Ellet, as to the effect of the extension of levees by the states above. Let any one inspect the levees on the river between New-Orleans and the mouth of Red River, as they pass up in a steamer, in the day-time, and they will see that the highest water does not rise more than from ten inches to two feet above the lands *behind* the levees, on all the points, or where there has been no caving. The levees in the caving bends are high, because all the highest land has caved in to the river, and the land everywhere slopes back, or descends *from* the river. If the extension of levees to the line of Arkansas has not had the effect to raise the water higher above these points than before any levees were constructed—as is the fact—why will a further extension of levees raise the river many feet?

Mr. Ellet's report, notwithstanding these objections, is valuable, and cannot be too much commended. It has added to our stock of knowledge, and should be generally circulated and read. Let all read, and let us have the benefit of the experience of others. If it have no other effect than to rouse the people of Louisiana to some concert of action with regard to levees, it will have done a great good. In our opinion, outlets never will be adopted. They are contrary to the spirit of the age; to that spirit of improvement which would reclaim and cultivate, that would convert every swamp and fen into abodes of wealth, into cultivated fields. Had the alluvial lands of the interior never been brought into cultivation, outlets might have been adopted, but not now. The water cannot be confined after leaving the river—millions worth of property would inevitably be destroyed—and the state is not prepared to pay *damages*.

We regret that the space allowed to an article for a periodical, will not permit us to enter into a detailed discussion of the many valuable facts —the many merits of Mr. Ellet's report; but the report is before us, and all can read and judge for themselves.

After much study and examination, we are convinced that the extension of levees and progress of cultivation, *do not* have the effect to raise the river to any appreciable extent; that the river *does* increase in capacity in direct proportion to the quantity of water it is called upon to convey; and that the plane of descent will not be elevated, nor changed, except by cut-offs, and by the gradual extension of the delta into the gulf.

A *system* of leveeing should be adopted. The state should be divided into five or more districts, with natural boundaries; each district to be in charge of an experienced and faithful engineer, whose duty it should be to survey for, and mark out where and how each levee should be built. The levees should be made higher, with a wider base, and a greater width at top, than now. When danger of caving is imminent, they should be

put farther back, and *in time*, regardless of private or individual interest and remonstrance. A general tax should be levied upon all real estate in each district, to *assist* in the construction of new levees. Let the people of the district pay a part, and the planter the balance. Let the engineer, in conjunction with an advisory board elected in each district, decide when and how far a levee shall be put back from the river bank in a caving bend, so that the interests of the district, or a community, shall be protected, and let their judgment be final. Some *efficient* means—there are none at present—should be adopted, to prevent the pirating of timber upon the public lands. By removing the motive, we may put a stop to this cause of crevasses.

It *may* be practicable to close two or more of the smaller passes of the Mississippi. Were it accomplished, a consequent gain in depth upon the bars of the others, seems inevitable; and, as the embouchure advances but one mile in twenty years, many years must elapse before the effect would be lost. The cross section of the discharge must be the same at a like stage of water. Subtract from the width, and we must gain in depth; and vice versa. Dredging can be but little depended upon—it is at war with the natural causes which produce the bars. We must, if possible, make the river do its own dredging. An increased depth of water upon the bars would remove the only objection to the establishment of a navy-yard at New-Orleans. It would permit the passage of those clipper-built ships which are destined to usurp the carrying trade of the world. New-Orleans never can become what she ought, the rival of New-York, unless she imports, and supplies the Mississippi Valley. She cannot import except in clipper ships, and they require more water upon the bar than we now have. Therefore a system of outlets, having the effect to diminish the depth, would result in great injury to New-Orleans, and through her, to the state.

We regret that the time occupied by Mr. Ellet, in making examinations within our state, was so limited; and feel well assured, from the liberal and professional manner in which he has treated the subject, that had he have had a more ample array of facts touching many points, in connection with, and ultimately allied to the whole, some of his deductions and conclusions would have been different. Instrumental examinations are much needed in various portions of the state, before we can give the fullest force to conclusions, and consequent suggestions as to healing and permanent remedies. The writer sincerely hopes that the theme is one which has so enlisted the professional spirit of Mr. Ellet, that he may be induced to pursue it with the energy set forth in his report, assuring him at the same time, that no sentiment contained in this article is intended in any spirit save that of courtesy, commensurate with the esteem engendered by the perusal of Mr. Ellet's valuable report, and a desire to arrive at the truth.

G. W. R. Bayley,
Civil Engineer.

ART. VI.—PRODUCTION AND MANUFACTURE OF SUGAR.

COMPOSITION OF SOILS, AND THE INFLUENCE OF CLIMATE AND SEASONS.

By analysis, we find that soils formed by the decomposition of granite, comprise various constituents highly desirable in a sugar-cane soil; which may be placed as follows, viz: silica, alumina, potash, lime, soda, magnesia, peroxide of iron, protoxide of iron, protoxide of manganese, and fluoric acid. These, with other mineral substances, and an accumulation of vegetable matter in a

state of decomposition, serve to constitute a soil of considerable fertility. The disintegrated crystals are constantly, though gradually, decomposing; but it often happens that planters have a prejudice against such land, because they see a large number of these crystals in the soil, and forthwith pronounceit sandy and unsuitable. Many a fine tract of land have I seen lying uncultivated, from no other cause than this unfounded prejudice. A French gentleman in the Straits, showing me his estate, took me to some fields near his house, which he said were the worst of all, and to be abandoned. Not content with this, he stated the canes then growing to be only seven months old, whereas they were eleven; being positively so anxious for the credit of his estate, that he was induced to practice deception, rather than have me form an unfavorable opinion of his property. However, time passed on, and these abused canes were cut and manufactured, (being the third crop from that land,) when the quantity and excellent quality of the sugar yielded were so satisfactory, that the idea of abandoning the cultivation of these fields could no longer be entertained; therefore, instead of doing so, the Chinaman (cultivating under contract) slightly manured and replanted them.* It was then observed that the labor in cleaning, trashing, banking, cutting, and carrying the canes, and manufacturing and curing the produce, was considerably less; whilst the sugar resulting was more, and of far better quality, than that of any other portion of the estate. With all the vivacity of his countrymen, this gentleman thereon became enthusiastic in his praises of this description of soil, (decomposed granite,) and would fain have had all the lands of his estate of the same quality.

Granite formation is very general in the Straits Settlements, and is always found to afford a really good and desirable soil for sugar-cane culture; being always mingled with a large quantity of decayed vegetable matter, furnished by the luxuriant vegetation of ages. In the low, swampy lands of Province Wellesley and Malacca, we generally find the debris of granite abounding in the soil, in conjunction with alluvial deposit and vegetable matter; together, forming the richest description of land to be there obtained.

In some parts, however, the soil is very variable indeed; in consequence of the capricious manner in which the beds of decomposed granite occur. Along the Malacca River, this is exhibited to a degree seldom seen elsewhere: a surface-soil of decaying vegetable matter (varying in thickness from one inch to twelve inches) resting on a strata of grayish plastic clay, below which the subsoil appears entirely composed of decomposed feldspar of a very pure white; the grayish plastic clay abounding in streaks of a red and yellow color, and containing a large quantity of disintegrated crystals, as yet undecomposed. This description of land is found in patches here and there, whilst immediately contiguous to it the soil assumes other totally different characters.

Some peculiar descriptions of granite rock resist the action of the elements in a remarkable degree,—as is shown in the case of two obelisks at Rome, which have been erected upwards of three thousand years. Others again, especially when feldspar predominates, quickly crumble away and are destroyed.

On the whole, then, we cannot view the granite formation, as other than favorable to the composition of a good soil, in which argillaceous earth abounds; although its comparative value must, in a great measure, depend on the vegetable and other substances with which it is mixed.

Many descriptions of porphyry and trap rocks occur in the West India islands, India, and the Straits Settlements. I will not, however, attempt to describe them, but confine myself to a brief mention of limestone; red, brown, and yellow clay ironstone; and magnetic and iron pyrites.

In Jamaica, limestone rocks abound, especially in the northern parts; where they are commonly called "honey-combed rocks," from their being worn into

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* In regard to the importance of *seed cane*, of which much is often said, Mr. Wray remarks:

"For my own part, I see no reason to be dissatisfied with the canes at present cultivated: nor do I think canes produced from seed would possess any advantage over those obtained from cuttings; so that I do not consider the failure of our attempts to discover cane seed, other than a trivial disappointment, of no consequence whatever."

various fantastic shapes by the action of the weather. Throughout India, also, they are found very abundantly; where they do not occur in one form, they do in another. Thus in many places the natives dig into the soil, or in the beds of rivers, for a description of concretionary limestone, which is constantly forming, and which they term *kunker*. This kunker is naturally very variable in its constituents; from the indiscriminate manner in which lime, from its strong affinity for acids, enters into combination with the first it may chance to meet.

At a depth of from eighteen to twenty feet in the ground, (on the banks of rivers in India,) I have often found considerable formations—being lime in combination with silica—of a dirty gray color; rough, irregular, excessively hard, and giving out abundance of sparks on being struck with a common hammer. Perhaps this ranks rather as a bi-silicate of lime than as a limestone. Limestone consists of lime in combination with carbonic acid and small portions of foreign matter.

As a formation, I know from experience, that it exercises a most beneficial influence on the growth of the sugar-cane plant, and the saccharine character of its juice. I well remember a small mountain estate, in the parish of Trelawney, Jamaica, which was so rocky, that in many of the fields planting could only be accomplished by hand, (not hoe,) as small indication of soil could be seen: yet the roots of the canes insinuated themselves betwixt the stones and rocks, and discovered abundant sources of nutriment of the rarest quality, as the sugar produced by those canes evidenced. I can safely say, that the juice was the cleanest and best I have seen in any part of the world; and the sugar (made in common open pans) was superior in every respect to any Muscovado I ever saw: that made by the vacuum pan not excepted. Surely this extreme excellence must have been occasioned by this peculiar formation (limestone;) and no doubt whatever can exist, that the roots extracted from it this supply of genial nourishment, which exhibited itself so strikingly in the abundance of saccharine matter deposited in the cells of the plant.

Of iron-stone, we find in the Straits Settlements many varieties; but in Malacca and Singapore the following are most common:—*red hematite*—of a brownish-red color, in masses, stalactites, and kidney-form balls; powder red, and structure fibrous—is composed of peroxide of iron, columbic acid, alumina, and water.*

Red clay iron-stone and *red silicious iron-stone* are, also, of the same class; and consist of red oxide of iron, more or less mixed with foreign matter.

Brown clay iron-stone and *yellow clay iron-stone* are of the species termed *hydrous peroxide of iron*; color, various shades of brown: as yellowish-brown, hair-brown, clove-brown, and blackish-brown, streak yellowish-brown. They are found to contain peroxide of iron and water, with very small portions of sesquioxide of manganese and silica: sometimes, also, traces of alumina.

Magnetic pyrites (sulphuret of iron) and *iron or cubic pyrites* (bisulphuret of iron) are very common indeed in the West India islands and Malacca: the former, which is of a color intermediate between bronze-yellow and copper-red, is composed of one atom sulphur, and one atom iron; the latter is of a characteristic bronze-yellow color, streak brownish-black, and contains of sulphur two atoms, iron one atom.† These pyrites are very abundant on some lands, and act very prejudicially on vegetation when the lands are not drained properly; as by exposure to the air this substance becomes converted, by the prolonged action of oxygen, into sulphate of iron and sulphuric acid, which remain in solution in the stagnant water that covers the land, rendering it very sour or acid. In seasons of dry weather, evaporation goes on rapidly, and this sour or acid water, percolating through the thick strata of decaying vegetable matter, often forming the surface soil, yields to the vegetable matter its oxygen, and thus again resumes its character as iron pyrites. With every lodgment of water and subsequent absorption these transformations are continually affect-

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* Thompson.

† See Dr. Thompson's work on "Mineralogy, Geology, and Mineral Analysis."

ed, so long as the land remains undrained; but a proper system of drainage altogether arrests these actions, and rescues the crops from the very serious injury sustained thereby.

In the Straits of Malacca, land so circumstanced is termed by the Malays *masam* (acid or sour); and they are often sadly perplexed and prejudiced by the partial or total failure of their rice crops, from this cause. But with the Chinese, in the same locality, no inconvenience of the kind is felt, when they pursue their usual system of cultivation. This fact induces a belief that the Chinese choose a sweeter and more fertile description of soil; whereas, in nine cases out of ten, no difference in this respect really exists. For the information of the sugar planter and others in the Straits, I will explain how this change is brought about by the Chinese mode of operation. When a Chinaman cultivates land, he generally acts on the principle that it is more profitable to cultivate one acre thoroughly, than two in an imperfect and partial manner; hence we are in the habit of terming their system "garden cultivation," which indeed it is: and a very wise and admirable system it must be allowed to be, which obtains from one acre of land as much as two or three acres commonly yield.

On this principle, therefore, the Chinaman proceeds to choose a patch of land of manageable size, the jungle of which he cuts, allows to dry, and then burns; next he sets to work on the roots and stumps of all trees and bushes remaining in the ground: these he carefully digs out, piles up in heaps, and covers over with earth. The intense heat of a tropical sun quickly dries the heaps sufficiently; when the Chinaman sets them on fire, and attends constantly whilst they are burning, that every portion may be consumed. The ashes and burnt earth resulting are carefully scattered over the land; which is then dug (by hoe) and thoroughly turned up. He next digs a trench, and throws up a bank around the land he has cleared, to drain it; and at the same time to keep out all water from the adjacent lands. Finally, he gives it a second *chankoling*, (hoe-digging), and plants out his sugar-canes, or whatever else he may please. Thus the first shower of rain saturates the alkalies contained in the ashes, (so abundantly spread on the surface of the land,) and in solution conveys them to the soil; in which they speedily enter into combination with sulphuric and other acids (existing as before noticed,) and form insoluble compounds. Hence we never hear a Chinaman complaining of acidity in land so settled by him. There certainly are lazy Chinese as well as lazy Englishmen, who are sufficiently careless to neglect such precautionary measures; but these form exceptions to the general rule; and they suffer, in common with the Malays, disappointment and frequent loss, from the failure of their crops.

Were the mischief arising from these false notions confined to the poor and ignorant Malays, I should not have been so diffuse in my remarks on this subject; but as Europeans (planters and others) are sometimes grievously misled by such assertions of the Malays, I cannot too strongly urge on them the absurdity of trusting to such authority. In the West Indies, proper drainage (and the application of a little lime, if it can be afforded,) will entirely relieve the planter from the ill effects of iron-pyrites on their crops.

It often occurs in the Straits Settlements, Demerara, Louisiana, and other places, that lands are strongly impregnated with saline matter; which certainly causes the cane to grow most luxuriantly, but affects the juice (and consequently the sugar made from it) very prejudicially. In Province Wellesley, I have known sugar that was quite salt produced the first year from such land; and in the Sunderbunds* it was so very salt, that the sugar estates had to be abandoned. In Demerara, also, infinite trouble and loss result from the same cause. Dr. Ure writes:

"The following analysis of cane juice, performed by a French chemist, was given me by Mr. Forstall, of New-Orleans.

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* Low land at the mouths of the Ganges, in the Bay of Bengal.

"In ten English gallons, of 231 cubic inches each, of juice, marking 8½° Baumé, there are 5¾ ounces, English, of salts, which consist of—

Sulphate of potash	17·840	grammes =	15·44 grains each.
Phosphate of potash	16·028	"	"
Chlorure of potassium	8·355	"	"
Acetate of potash	63·750	"	"
Acetate of lime	36·010	"	"
Gelatinous silica	15·270	"	"
	157·253	= 5·57 ounces avoirdupois.	

"To the large proportion of deliquescent saline matter—of which one-half, he says, remains in the sugar—the analyst very properly ascribes the deliquescence and deterioration of the sugar, when kept for some time, or transported. It was probably the juice of the cane grown in the rich alluvial soil of Louisiana, which is more abundant in saline matter than the average soil of our West India islands. The Demarara cane juice has, perhaps, the above saline constitution; since it suffers much loss of weight by drainage in the home voyage."

Where salt is present in land—as from the overflowing of the high spring-tides—nothing can be done but making good "bunds" to keep out the salt water, and establishing a good system of drainage. By these means, the soil being well turned up, the excess of saline matter will in a crop or two be carried off by the rains; which will wash the soil and pass off by drainage: and also, in part, by the quantity contained in the cane or other crop grown on the land. In Province Wellesley, this has been the case; and it will always so happen, unless the soil be of that sandy and porous nature which admits of the salt or saltish water soaking up through it during the continuance of the spring-tides. When once the cane has imbibed these undesirable salts, they become incorporated in its juice; and then all attempts to get rid of them are quite unavailing. The only course to be pursued with such land is—after bunding and draining it properly—to plant Indian corn, Guinea corn, or Guinea grass on it for two or three years, until the saline matters have become in a degree exhausted; when canes may be planted without fear. I have already said that the soil which I know to have produced the best sugar of any I ever saw, was of a limestone formation; and such I have known (from the estate book) to have ratooned for twenty years! Yet, in consequence of its being a mountainous estate, I doubt much whether it could be profitably cultivated in these times. I will not, therefore, dwell on such soil, but pass on to that known as a "brick-mould."

In the West and East Indies this description of soil abounds, and combines so many advantages, that it may truly be stated as the most desirable soil the planter can have.

"Brick-mould" soil is of various colors, and, of course, of variable powers. It is composed of a mixture of sand and clay, in such proportions that air and water can penetrate to some depth with sufficient facility; and it admits of being worked up, by plow or hoe, readily and easily. Vegetable matter and various substances, of course, are mixed up in such soil, and serve to increase its fertility; but a great deal depends on the nature of the clay which is in combination. Clay varies very much in its character, and consequently in its value. It is composed of argillaceous earth (otherwise termed alumina) and silica: very commonly the oxides of iron occur in it also, and impart a red, brownish-red, or blackish-brown color to the mass; from which it is then denominated a ferruginous clay.

No clay soil can of itself be considered fertile, although it may abound in the elements necessary to fertility; inasmuch as clay is of itself so compact and cohesive as to be entirely closed to the action of air internally; but when in admixture with sand and decayed vegetable matter, in due proportion, it is then in the most favorable condition to benefit by such action. Air and water now penetrate with all desirable freedom; and perform their important parts in an unceasing action on the alkaline constituents, and the decaying vegetable bodies contained in the soil.

Let us here pause for an instant, to inquire into the nature of these actions; the arrest of which causes a soil, abounding in the elements essential to fertility, to become at once barren and unproductive. First, then, we find that atmospheric

air—which is composed of carbonic acid gas and oxygen gas, with small portions of ammonia and hydrogen—is required to permeate through the soil in order to afford to it its oxygen; which sets free the alkalies contained in the various constituents of the soil, and keeps up in the vegetable matter or humus a putrefactive fermentation, which causes it to evolve carbonic acid; thus constant supplies of nutriment, in the shape of alkalies in solution and carbonic acid, are being supplied to the roots of the plants growing on that soil. But this is not all; for the carbonic acid gas and ammonia contained in the air, are absorbed by the oxides of iron and alumina, and fixed in the soil; to be presented in a soluble form to the roots of the plants, on the occasion of every shower. Secondly, we perceive that water is absolutely necessary, to dissolve the alkalies and earthy salts contained in the soil, and to furnish them in a state of solution to the plants: but, in addition to these and other important offices, the same water affords to the plant its hydrogen, and a portion of its oxygen, to enable it to effect certain chemical transformations.

Air and water, then, must have free access to soils; otherwise they are barren. Where a due quantity of sand is in combination with clay, no obstacle exists to their action; and when the clays are rich, the sand silicious, and vegetable matter abundant, the very best soil is presented to us for all agricultural purposes. Its property of retaining moisture, even in the hottest season, is very remarkable: whilst in heavy rains the water drains off very quickly wherever drains exist; thus, under proper management, an excess of water is never retained in the soil; nor does it ever become destitute of moisture. It is easily broken up by the plow or hoe, forming comparatively light work for the cattle and laborers on an estate; and it always yields a more grateful return for the plowings or "working up" which it receives, than any other description of soil. Brick-mould, therefore, is deservedly esteemed and sought after by all planters; as it not only gives good and abundant returns during the first and second years, but still continues ratooning for many years, advantageously.

I have known many estates to have fine level fields of a rich clay soil, most readily convertible into an excellent brick-mould, by merely carting to it a proper proportion of sand, which also abounded on the properties; yet from neglect, want of information, or other causes, these fields were suffered to remain unimproved in this respect. The lands of a friend of my own, in the Straits Settlements, are at this moment in this condition; and although he is striving to the best of his ability to afford them the requisite quantity of sand, yet his cattle are so weakly, and his means so contracted, that I fear a very considerable time will elapse ere his fields can receive anything like the quantity their nature demands.

I must not omit to mention a particular kind of soil which is found in the parish of Trelawney, Jamaica, and is very valuable for sugar cane cultivation. It is of a chocolate color; varying, however, to a red of different shades of brightness, and has a very glossy or sparkling appearance when first plowed up; when wet, it soils the hands as would paint.

Bryan Edwards, Porter, and others, make mention of this soil; but I have never known any explanation given as to its origin. I have had a great deal to do with it in the West Indies, and have seen abundance of it in Malacca, and am inclined to pronounce it as consisting of that micaceous variety of specular iron ore,* termed sometimes "iron-froth," largely combined with lime, in various forms, and other matters.

In Trelawney, limestone formation prevails generally wherever this chocolate-colored soil is found; and it is but reasonable to suppose that the large quantity of lime dissolved and carried in solution to the soil by the action of the weather, must serve to neutralize any excess of acidity caused by the presence of the mineral oxides. On the whole, it forms a fine friable mould, is easily worked up, is retentive of moisture, and bears excellent crops of canes, which ratoon well, and produce abundance of fair, well-grained sugar.

The oxides of iron and alumina abounding must tend to render such soil fertile, by the large quantity of ammonia which it absorbs from the atmosphere, fixes in the soil, and yields in solution (on the occasion of every fall of rain)† to the roots of plants.

* Iron-froth (Eisenrahm) is composed of scaly friable parts which soil strongly: color between cherry and brownish-red; very soft.

† See Liebig's Organic Chemistry, p. 89

The climate most congenial to the sugar-cane plant is of a warm and moist character, with moderate intervals of hot dry weather, attempered by the refreshing sea-breezes. It has always been found to grow most luxuriantly on islands, and along the seacoasts of mainland; which leads us to conclude that the saline particles borne on the sea-breeze exercise a powerful effect on the growth of the plant. The influence of the sea-breeze, however, is exerted in many ways: as by imparting moisture to the soil, even in the hottest weather and driest season, by supplying to it the major portion of the saline matter borne inland, and by affording to the leaves of the canes matter for assimilation: add to which, the abundant dew, which it decidedly affects.

Within the tropics, the cane attains its greatest perfection; cold, to any degree, does not suit its growth or development; hence it cannot be cultivated with success in Europe, although it has often been attempted in Spain and other places.

In Louisiana, the frost often sets in before the planters can get in their crops; and so affects the cane that its juice can no longer be induced to crystallize, unless, indeed, the canes can be cut and manufactured before a thaw occurs.

This is occasioned by the fluid contents of the various cells or organs bursting (from excessive cold) their bounds, and becoming intermingled the one with the other: that is, the saccharine with the nitrogenized principles. Now, whilst the frost continues, the lowness of the temperature prevents the possibility of fermentation; but should a thaw intervene, the temperature of the air is raised sufficiently high to permit a viscous fermentation taking place, which altogether prevents the crystallization of the juice, if afterwards concentrated.

If, after a sharp frost, a thaw or period of comparatively warm weather occurs, of sufficient duration, this viscous fermentation is continued until all the sugar contained in the juice is decomposed, and the commingled fluids have resolved themselves into "a viscid mucilaginous matter," possessing neither sweetness nor acidity. This will occur to the juice of the cane yet uncut: but it also happens to expressed juice under other and singular circumstances; one instance of which it may not be out of place to mention, as, in both cases, the substances tending to organize become organized, though by courses very different from each other.

"Vauquelin, on examining the juice of the sugar-cane—which, before being sent from Martinique, had been heated to 212° in closed flasks, in order to absorb the oxygen of the air contained in the flasks—found that it had become changed, during the voyage to France, into a viscid mucilaginous matter, which was with difficulty got out of the flasks. It was insoluble in alcohol. When treated with sulphuric acid, it yielded no grape sugar; and nitric acid changed it into oxalic acid, without any trace of mucic acid. The sugar had become a texture. The substance tending to organize had become organized."*

In the upper districts of India, frost often does great injury to the cane crops; but the manner in which the mischief is effected, is not at all understood by either natives or Europeans. The cane is in every respect a tropical plant, and requires that strong light and heat which are to be found continually in a tropical climate alone.

The influence of *seasons* is a very important subject, to which I must beg leave particularly to direct the attention of the planter. In the first place, I must divide the subject into two parts, in order to treat of the great continent of India separately; as its seasons are entirely different from those of the West India Islands, Mauritius, and the Straits Settlements.

The seasons of the West Indies, Mauritius, Ceylon, and the settlements in the Straits of Malacca, are very similar; and indeed the climate and seasons may both be said to be exceedingly alike, as far as regards average heat, equable temperature, duration of rains, &c.: but there are variations arising from difference in local position, which will be particularly stated under their own proper heads.

In the colonies just named, there cannot be said to be any cold season; but they all have distinct periods of hot, dry, and rainy weather more or less marked, and slightly varying in the months during which each occur. In the West Indies these periods are well defined and pretty regular, and the planters commonly choose the spring and the fall as the most eligible times for planting out their fields in canes; but on some estates canes are planted and manufactured all the year round.

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* See Raspail's Organic Chemistry, p. 329.

I may here remark, that I am well aware that, in fifteen cases out of twenty, a managing planter of a West Indian estate is not allowed the free exercise of his own judgment, but is forced to act according to the directions he receives from the agent or planting attorney (as he is termed) of the estate. From this cause, it is not always just to impute blame to the resident manager (or overseer, as he is termed, in Jamaica) for the errors of system, and ill success of the estate nominally under his management: nor can we altogether wonder that a managing planter brooks such a state of dependence, and hesitates, by a show of independence, to risk his livelihood, (perhaps that of his family also,) and at the same time make an enemy for life of the planting attorney: which would very often result. That such a state of things should exist is much to be deplored; as it is evident, that numerous evils must arise from such a denial of confidence on the part of the planting agent, and feeling of insecurity on that of the resident manager. These, however, are matters more properly belonging to another part of my subject; and I only introduce the mention of them here, that I may be spared the ungracious task of noticing the numerous errors committed on West Indian estates, in regard to seasons.

One of the greatest causes of mischief and injury on sugar estates, is the use of dried cane-trash or magass for fuel, instead of wood or coal. To keep up a supply of this most expensive fuel, what sacrifices are not made!—what delays, what trouble and anxiety does it not occasion! and how unsatisfactorily, or rather how ruinously, does it not act, in regard to the interests and well-being of an estate. It does, indeed, disarrange the whole system of plantership, and is of itself sufficient to disconcert plans which, in other respects, have been well conceived, and ably carried out. Need I here explain how this happens, and how it affects the particular subject now under notice? I think not. A more suitable place for such an explanation will shortly present itself. I will therefore merely remark, that provided with an abundant and sure supply of good fuel, such as coal or wood, the planter would avail himself to the utmost of the advantages attendant on choice of time and season, for planting canes and manufacturing his produce. No cloudy weather or drizzling rain would then deter him from cutting canes; on the contrary, every reason would urge him to do so: he would strain every nerve to get his ripe canes cut and manufactured before heavy rains came on to render their juice watery, and at the same time procure tops to plant out during such seasonable weather for planting.

Sunshine or cloudy, fair or showery, it matters not. Certain fields of fine canes require cutting: they are cut; other fields require planting, and the weather is favorable: they are planted. No anxiety can be entertained,—no risk is run; for a bountiful supply of coal (or wood) is on hand, which ensures a certain and rapid manufacture of the juice. Without such fuel, the proper seasons for planting and manufacture can only be partially availed of.

In the West Indies and the Straits Settlements, the sugar-cane always shows a great desire to "arrow" or flower during the months of January, February, and March; so much so, that I have frequently seen ratoons of only seven months old arrowing freely. From December to July is decidedly the best season of the year for manufacturing; and from August to end of November may be called the rainy months, or the months during which rain may usually be expected: but in the Straits the seasons are sometimes very capricious.

As the cane approaches maturity, two or three months of hot and moderately dry weather bring it to its highest degree of sweetness, and fits it to yield an abundant return of fine quality sugar: but a slight shower at long intervals is far from being injurious to the juice; on the contrary, it serves to maintain the vigor of the plant, without weakening its juices. Such is the weather a planter always rejoices in "for working off" his crop.

The seasons in India may be divided into the hot, cold, and rainy; each in extreme, as far as the cane is concerned, and consequently as trying to the plant as can well be imagined.

I have planted fields of native cane during the month of December, (when in Upper India it is very cold,) and the plants did not appear above the ground until the weather became warm, in the middle of February! Finding no appearance of vegetation for so long a period, I was thinking of replanting the land, but was told by a neighbor that if I waited until the warm weather set in, I should see

the canes I had already planted spring up in a very satisfactory manner; as it was well known that native cane would not vegetate when planted during the cold season. This I have always found to be the case. The Otaheite and Chinese canes are not so affected, although their growth is much impeded. Canes planted during the early part of October attain a tolerable growth by December, when the cold checks them completely, until the warmth of February and a light shower infuse new life into them, and bring forth numerous vigorous shoots. The "hot winds" usually set in in the early part of April,* and continue until the middle of June, scorching and burning up the plants, which are only saved by the rains that then commence. The rapidity of their growth is then truly wonderful: in four months only, fine fields of tall and luxuriant canes have sprung up, where previously all was dry and parched! The change is indeed astonishing.

If it be in a part of the country where frost does not occur, it will sometimes be advantageous to allow the canes to continue in the ground until February; when their juice will be in a richer state than it can be immediately after the rains.

But if frosts are to be feared, it is better to plant at a good distance apart; and, by keeping the plants free from dead leaves, allow air, light, and heat to circulate freely between them, so that they may be cut and manufactured in November.†

During the rainy season, and whenever thunder-storms occur, canes must receive a very considerable and beneficial impetus, from the electricity which their leaves attract from the overcharged atmosphere; and although we cannot know how it acts, yet no one can refuse credence to the fact of its wonderful influence on vegetation. Independent of this, however, we are assured of the quantities of ammonia and carbonic acid existing in the atmosphere of a tropical country; both of which are conveyed to the soil by the rains which fall, and serve to renovate and fertilize it. This ammonia exists in the atmosphere of tropical countries in much greater quantities than in that of Europe; in consequence of the putrefactive process being so continual, and so much more rapid than in cold or temperate climates. India, besides 200,000,000 of human beings, teems with myriads of birds, beasts, and fishes; all more or less yielding ammonia to the atmosphere both during life and after death: we can therefore imagine how it must abound. The native cultivators well know the benefit land derives from being often plowed and worked up during the rainy season; but of course, they do not know the manner in which this renovation takes place: certain it is, that there can be no country in the world where less manure is used, or where the land is so completely stripped—so hardly pressed; yet, by the practice of frequent plowing, it continues year after year to yield moderate crops. To what is this due? Is it not to atmospheric influence? Most assuredly it is. Whilst I would wish to impress this fact on the planter, I would at the same time point out to him, that although the principle is in part correct, it is on the other hand, in part, stupidly wrong; inasmuch as not long cultivated land can produce the crops it should, merely by aid of atmospheric influence: it must have returned to it as manure a portion of those constituents of which it has been deprived by cropping. The Chinese system of making land produce its utmost, and keeping it up to that standard, is the correct and strictly true principle. What is termed in the Straits, "forcing a soil to exhaustion," is an ignorant and eminently absurd expression, which has no meaning: for if a soil will produce by good management, (say) two tons of sugar, for twenty years in succession, it certainly will continue to do so *ad infinitum*: provided the same good management be exhibited.

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* Often in March. † As a general rule.

DEPARTMENT OF COMMERCE.

1.—COMMERCIAL NAVIGATION OF THE UNITED STATES AND GREAT BRITAIN.

We are indebted for this and the next extract to Mr. Kettell's invaluable "United States Economist."

The navigation laws of Great Britain, which were originated in the middle of the seventeenth century, and continued in force down to the peace of 1815, have now since three years been abolished in respect to the foreign trade. It was generally contended, and by many believed, that the commercial greatness of England was due, to a considerable extent, to the operation of those laws, rather than to the enterprising and commercial character of her people. The singular position of their island home, which made navigation the only means of communication with their neighbors, and eminently favored its development, inasmuch as that no wind can blow from any quarter of the compass but that it is fair for the arrival and departure of some of England's mercantile marine; her possession of oaks, iron and mechanical genius, enabled her to build, without competition, those vessels which her enterprise and necessities sent into all seas. With these advantages, it was inevitable that England should become the mistress of the seas; and to ascribe the results of those combined circumstances to the operation of law, was more worthy of a dark age than of the enlightened present. Soon after the government of Cromwell invented those laws, Colbert, in 1664, constructed the first general tariff for France, and the principles of that tariff were more strictly enforced by succeeding ministers, especially in relation to navigation, down to the present day. As long as all the countries out of Europe were dependencies of European governments, and exposed to the operation of their laws, but little progress was made in that healthful rivalry which operates to the benefit of general industry. The separation of the United States from Great Britain freed them from the operation of her laws, and compelled their relaxation. Even statesmen were not too stupid to see the necessity of modifying a state of things which compelled a British vessel to make a voyage across the Atlantic in ballast, one passage, passing a United States vessel loaded, thus charging two freights upon every cargo carried without benefiting the vessel; consequently the laws were for the first time modified, and United States and British vessels placed upon an equal footing. In 1818 the United States passed a law virtually abolishing navigation laws in favor of any nation which should adopt a similar policy. The inevitable progress of commerce, deepening its own channels, at length compelled England, in time of famine, to suspend her navigation laws, in order that vessels of all nations might bring her food. Holland and Belgium were compelled by the same necessity to do likewise, and that experiment led to the final abrogation of the English navigation laws in 1849, consequently bringing into force the United States law of 1818. France alone remains in her former position. The results of the exclusive policy of France, and of the liberal policy of the United States and Great Britain, are seen in the following table, which shows the tonnage which entered each country in 1849 and 1851, distinguishing the foreign from the national:

TABLE SHOWING THE TONNAGE WHICH ENTERED EACH COUNTRY, DISTINGUISHING THE NATIONAL FROM FOREIGN FLAGS.

	1849.		1851.	
	National.	Foreign.	National.	Foreign.
Great Britain	4,390,375	1,680,894	4,388,245	2,599,988
France	837,345	1,049,946	866,145	1,312,411
United States	2,658,325	1,710,515	3,054,349	1,939,091

The exclusive policy of France has not promoted her interests. Of the whole tonnage which enters France in any one year, only 40 per cent. is the property of French citizens. In both England and the United States the reverse is the case. It is doubtless the case that the genius of France is far less maritime than either that of England or of the United States; but the figure shows that laws can do but little towards changing the character of a people. As between the United States and England, both possessed of maritime aptness, it was fiercely contended that the superior capital and general resources of the latter would enable her, on a footing of equality, to drive the United States vessels out of the trade, at least the international trade.

It was supposed that in what was called the triangular voyage between the United States, British West Indies and England, the vessels of the latter would have such advantages as would ruin American tonnage. We may now, from official documents, compile a table of the British and American tonnage which entered the United States from each country of the world at two periods. In this table it will be seen that the operation has been altogether in favor of the United States, the tonnage of the latter showing an increase from almost every country.

BRITISH AND UNITED STATES TONNAGE ENTERED UNITED STATES.

From—	1849. British.	1849. U. S.	1851. British.	1851. U. S.
Great Britain	551,162	600,769	501,894	643,299
Canada	537,697	906,813	514,383	1,013,275
North American Colonies	314,805	120.867	361,564	62,418
British West Indies	46,686	63,523	39,894	58,353
British East Indies	—	20,529	2,508	29,907
Total G. B. dependencies	1,450,350	1,712,501	1,420,243	1,807,252
All other countries	32,357	945,820	140,022	1,247,057
Total tons	1,482,707	2,658.321	1,560,969	3,054,309

Thus we observe that the entries of United States tonnage from Great Britain increased 42,530 tons; but British tonnage decreased 49,268 tons. The same in respect to Canada and the British East Indies. From countries other than British, the trade has been virtually monopolized by United States vessels.

If we compare the progress of tonnage in the foreign trade of the United States and Great Britain, we shall have results as follows:

TONNAGE OF THE UNITED STATES AND GREAT BRITAIN, ENTERED IN EACH YEAR.

	UNITED STATES. American.	UNITED STATES. Foreign.	GREAT BRITAIN. British.	GREAT BRITAIN. Foreign.
1834	1,074,670	568,052	1,996,930	648,911
1835	1,352,653	641,310	2,108,492	732,883
1836	1,255,384	680,213	2,250,173	882,194
1837	1,299,720	765,703		
1838	1,408,761	604,166		
1839	1,491,279	624,814	2,756,533	1,201,935
1840	1,576,946	712,363	2,807,367	1,298,840
1841	1,631,909	736,444	2,900,749	1,081,380
1842	1,510,111	732,775	2,680,838	974,768
1843, 9 mos.	1,143,523	534,752	2,919,528	1,005,894
1844	1,977,438	916,992	3,087,437	1,143,896
1845	2,035,486	910,563	3,699,853	1,353,735
1846	2,221,028	968,178	3,622,808	1,407,963
1847	2,101,359	1,120,346	4,238,056	1,852,096
1848	2,393,482	1,405,191	4,020,415	1,559,046
1849	2,658,321	1,710,515	4,390,375	1,680,894
1850	2,573,016	1,775,623	4,078,544	2,035,152
1851	3,054,349	1,939,091	4,388,245	2,599,988

The year 1839–40, and in 1847, the increase of foreign tonnage entering Great Britain was large, in consequence of the great importation of corn, and these have, since the last famine, continued at an enormous figure, favoring the employment of the tonnage of the corn countries. In the above period of fifteen years, however, the entries of American tonnage in the United States have tripled, while British tonnage in England has little more than doubled. The ratio of foreign tonnage entering England has increased faster than foreign tonnage in the United States, because American vessels are included in the former. The tonnage of the U. S., in its several employments, has progressed as follows:

UNITED STATES TONNAGE.

Employed in—	1840.	1850.	1851.
Foreign Trade	752,838	1,386,754	1,482,273
Foreign Steam	—	44.942	62,390
Foreign Whale	136,926	146,016	181,644
Coasting Vessels	946,480	1,273,994	1,333,108
Do. under 20 tons	32,030	42,027	45,654
Do. Steam	196,184	481,804	521,216
Cod Fishing	67,926	85,646	87,475
Do. under 20 tons	8,109	8,160	8,140
Mackerel Fishing	28,269	58,112	50,539
Whale do	—	—	—
Total	2,170,762	3,527,455	3,772,439

In the eleven years here embraced, the sailing tonnage in the foreign trade has doubled, and over sixty-two thousand steam tons have been added. The coasting sailing tonnage, in the same time, has increased forty per cent, and the steam two hundred per cent. The home fisheries have shown no great increase; in fact, precisely that interest which alone has received bounties from the government is the only one that has not increased. This large increase in tonnage has not been without its influence upon

freights, but these have not been sufficiently depressed to prevent the construction of vessels.

The following table shows the progress of building for the foreign trade:

REGISTERED TONS BUILT AND DISPOSED OF.

	Built.	Sold to Foreigners.	Condemned.	Lost.	Increase.
1846	58,274	10,931	4,242	22,118	20,981
1847	78,849	13,907	5,096	22,078	37,766
1848	135,885	11,079	3,602	26,872	94,332
1849	99,130	12,506	7,109	23,606	55,908
1850	157,612	13,468	4,666	23,724	115,753
1851	165,849	15,246	3,806	23,149	123,647

The increase in the effective tonnage has been very large. The high freights of 1847 stimulated a great activity in the ship-yards, which subsided in the following year, to be renewed with greater vigor in the past two years. The coasting tonnage has shown the same features, notwithstanding the continual increase of competition from the rail-roads, a competition which, in England, has seriously reduced the coasting tonnage. If the coasting trade of England had been thrown open, like the foreign trade, the diminution in its movement would have been ascribed to that; but it had only the rivalry of rail-roads, and these have been effective. In the United States, great as has been the activity of the rail-road traffic, it has not, up to this time, encroached upon coasting tonnage.

2.—EXPORTS OF COTTON GOODS.

In our last number we remarked upon the importance of removing the duties upon those raw materials which enter into the cost of manufactured goods. That measure seems the more important, inasmuch as that New England goods can now compete successfully with those of Great Britain in the same markets. The following table, from official sources, shows the destination of the exports for a series of years.

EXPORTS OF DOMESTIC COTTON GOODS FROM THE UNITED STATES.

To—	1833.	1846.	1850.	1851.
Asia	13,360	259,614	278,776	60,900
Africa	35,551	149,149	146,300	545,296
China	215,497	813,606	1,203,997	1,854,618
Chili	369,704	981,981	594,691	855,684
Brazil	261,640	477,864	533,187	656,417
Mexico	931,151	73,817	304,678	111,541
Hayti	20,750	59,274	264,992	296,051
British East Indies	37,214	77,575	311,265	320,906
Buenos Ayres	160,888	9,666	169,892	88,792
Cuba	42,871	37,808	24,421	25,741
Texas	—	59,298	—	—
Canada, &c.	—	—	248,165	1,221,934
All other	443,888	583,830	537,060	1,163,525

The returns from Boston and New-York, of the quantity exported this year, as compared with last, will indicate that the value will reach $10,000,000 for 1852.

The aggregate value has nearly tripled since 1833, showing a greater ratio of increase than the exports of Great Britain, which from a value of £18,486,401 in 1833, reached an export value of £30,089,000 in 1851. But it would seem to be the case, that the exports of the New-England States increase as the quantity of cotton taken declines, notwithstanding the fact that many raw materials which enter into the manufacturing are exposed here to taxes, which the British manufacturers do not have to pay. The remarkable impulse which has been given to the foreign sales of domestic goods may be seen in the following table, from official sources, of the export of cotton goods from the rival manufacturers of Great Britain and the United States, and the bales of cotton consumed in each country for several different years:

	UNITED STATES.		GREAT BRITAIN.	
	Bales Consumed.	Value Exports.	Bales Consumed.	Val. Exp's.
1833	194,412	$2,532,517	877,589	£18,486,401
1835	216,888	2,858,681	937,616	20,513,586
1838	246,063	3,678,755	1,265,116	24,550,375
1842	267,850	2,970,690	1,221,693	25,999,478
1844	346,744	2,898,880	1,427,482	25,831,586
1845	389,006	4,327,928	1,577,617	26,119,321
1846	422,597	3,545,481	1,561,232	25,610,693
1847	427,967	4,082,532	1,142,008	24,472,936
1848	531,772	5,718,205	1,508,291	23,339,000
1849	518,039	4,933,129	1,586,606	26,890,000
1850	487,769	4,734,424	1,513,007	28,252,700
1851	404,108	7,241,205	1,664,575	30,089,000

The manufacture in the United States has, in the period embraced in the table, increased 212,000 bales, and the export has increased but $4,500,000. In Great Britain the consumption has doubled, yet the export has increased in a less ratio. It would seem, nearly all the increase of her manufactures is for export.

It will be observed that in the table of "bales consumed," is given only the cotton taken by the manufacturers from the ports, and does not embrace the annually increasing quantities sent to the factories of the interior from plantations. It will now be observed that the average official value of cotton in 1850 was 11¼ cents, and in 1851, 12 cents. At this rate, the bales in the last year were worth $48, and in the former $45 each. On this basis the results are as follow:

	Bales used.	Value.	Value Exported Goods.
1850	487,269	$21,948,605	4,734,424
1851	404,108	19,397,184	7,241,205
Decrease	83,661	$2,551,421	—
Increase	—	—	2,506,781

This great change in the direction of goods would indicate the extent to which the coarser descriptions are supplied from the factories of the South and West, and to which those of the Atlantic States, so supplanted, find markets abroad. It is probably the case that the diminished purchases of cotton in the last ten years resulted less from decreased actual consumption than from using up stocks, which are now apparently being replaced by the large purchases which the cotton returns indicate. California has opened a fair market, but the whole of Asia, including China and the British and Dutch East Indies, take increased quantities. The consumption of United States cotton in Canada, during the past year, is, however, the most pleasing indication of New-England progress, in competition with the English. The removal of the duties on the raw material will give a still greater advantage to the trade in this direction.

3.—COMMERCE OF ST. LOUIS.

LEAD.

Total Product of the Upper Mines, received at the Port of St. Louis, for the past eleven years, viz: from 1841 *to* 1851:

1841	463,404 pigs	32,438,280 lbs.	aver. price	$3 55	$1,151,538	94
1842	473,699 "	33,158,930 "	"	3 00	994,767	90
1843	584 131 "	40,889,170 "	"	2 70	1,104,007	59
1844	624,601 "	43,722,070 "	"	3 00	1,311,662	10
1845	778,460 "	54,492,200 "	"	3 30	1,798,242	60
1846	752,403 "	52,668,210 "	"	3 50	1,843,387	35
1847	802,656 "	56,185,920 "	"	3 75	2,106,972	00
1848	681,969 "	47,737,830 "	"	3 60	1,718,561	88
1849	625,562 "	43,789,340 "	"	4 05	1,773,468	27
1850	567,496 "	39,724,720 "	"	4 45	1,766,750	04
1851	540,000 "	37,800,000 "	"	4 20	1,577,600	00
					$17,147,978	67

There are no means of ascertaining the exact product of the Lower Mines, but the most reliable information fixes it at 150,000 pigs annually, for the past eleven years—say:

11 years—150,000 pigs, or 115,500,000 pounds, at $3 50—$4,042,500 00

This shows the value of the product of the Upper and Lower Mines for the past eleven years, to be twenty-one millions, one hundred and ninety thousand four hundred and seventy-eight dollars and sixty-seven cents.

GROCERIES.

Commencing with the year 1841, we find that the wholesale grocery trade, which usually embraced the commission business, was confined to some twenty houses, with an aggregate capital of $1,500,000.

The imports were estimated at two and-a-half millions of dollars, with sales amounting to $3,500,000.

Suffering alike with all other branches of business during the revulsions of 1841 and 1842, we find, that although the sales during this period maintained about the usual average, with perhaps a slight diminution, yet not until the commencement of the new era, in 1845, did a healthful increase manifest itself.

From this period may we date the rapid and extraordinary increase in the grocery business. The restoration of confidence, the great influx of emigrants, the improvement

in the condition of the country generally, requiring, not only the necessaries, but the luxuries of life, combined to advance this department of trade more rapidly than could have been anticipated under ordinary circumstances.

In addition to these causes, we might include the opening of the Michigan Canal, connecting us with the cities and vast country bordering on the lakes—affording them supplies of groceries at greatly reduced prices, and supplanting, to a very considerable extent, the trade with the eastern cities.

From 1845, we estimate the grocery trade to have increased almost one hundred per cent., with a capital proportionably enlarged.

The total sales of the jobbing grocers, for the year 1851, approximates to $10,000,000, whilst the trade of the retail grocers of the city approaches to two-and-a-half millions of dollars.

We append a tabular statement, showing the imports of four of the most important or leading articles in the grocery trade for the past six years:

		1846.	1847.	1848.	1849.	1850.	1851.
SUGAR—	Hhds	11,603	12,671	26,116	26,500	25,796	29,274
"	Bbls	5,752	20,111	14,812	7,348	5,031	20,856
"	Boxes					11,328	15,834
COFFEE—	Bags	65,128	77,767	78,842	67,353	73,673	101,903
MOLASSES—	Bbls	14,996	21,554	21,948	29,214	29,518	40,281
SALT—	Sacks	177,724	106,302	204,741	291,709	261,530	266,933
"	Bbls	58,948	41,380	38,809	23,553	19,158	46,250

DRY GOODS.

Referring to the year 1841, we find that the entire wholesale dry goods business was transacted by about ten houses, several of which kept assorted stocks of other wares, now forming separate and distinct branches of trade.

The aggregate capital then employed approximated to $600,000, and sales to the country merchants were estimated at about $1,250,000.

The newness of the country, excess of imports over exports, great length of credits, and dearth of moneyed facilities, were, perhaps, principal causes why this branch of business, for several years, up to 1845, paid little or no remuneration.

Business was almost entirely transacted on credit—the time granted, or in a manner, forcibly taken from the wholesale dry goods men—so extended their credits as to render them, to a certain extent, the underwriters for the other departments of trade, and they probably suffered more than any other. Indeed, the losses were so heavy, and apparently unavoidable—it is questionable whether the gains of any one house, uninterruptedly engaged in the business during that period, more than equaled their expenses. From 1845, when our city sprang, as it were, into a new commercial existence—when wide extents of tributary country, from sparsely settled lands and indigent inhabitants—seemed, by some magic transition, to suddenly smile with improvements, civilization, and growing wealth. From that time may we date the permanent establishment and rapid increase, of not only this, but of every other branch of trade. A total reorganization seems to have been formed—a new and powerful impetus appears to have been given. Instead of unlimited credits, prompt payments were agreed upon and exacted—the "no-lapping system" rigorously adhered to, and goods were afforded at greatly reduced profits.

In consequence, the imports were more than trebled in one year; sales were proportionably increased; and both the country and city merchant experienced and acknowledged the benefit of the change.

Coming down to the end of the decade, we find the houses engaged *exclusively* in jobbing dry goods, to number *about* twenty, and the capital employed to approximate to three millions of dollars.

The imports during the year, ending Sept. 1st, we estimate at $6,000,000; and sales to the country, including the season ending December 1st, at $7,000,000.

This is exclusive of the retail trade, (in which branch many houses wholesale to a considerable extent,) and we estimate the amount of their importations to be about three millions of dollars, with sales approaching to $4,000,000, making the total imports of dry goods to be $9,000,000, and sales approximating to $11,000,000.

4.—THE COFFEE TRADE.*

The rapid increase of the quantity of Coffee produced in the Brazils is expressed in the following table, compiled by the Brazilian Consul General:

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* The reader will refer to an elaborate paper, which we published in our second volume, upon this subject, and which we now conclude to date.

Production of Coffee in the Brazils.

	Bags.	Arrobas.	Lbs.
1820	95,700	478,500	15,312,000
1825	182,710	912,550	29,201,600
1830	391,785	1,958,925	62,685,600
1835	627,165	3,135,825	100,346,400
1840	1,063,805	5,319,005	170,208,800
1850–51	1,897,231	9,486,155	303,556,960
1851–52, estimate	1,700,060	8,500,000	272,000,000

It would seem from this table that the production of coffee in Brazil doubled every five years up to 1840, since when it has increased 80 per cent. The increase since 1835 has been 200 million pounds; and of that increase the United States have taken one-half. In the previous number of the *Economist*, we showed that almost all the increased production of sugar in Cuba had found a market in the United States. It now appears that a considerable proportion of the Brazil coffee finds a market here also. This is indicated in the following table, which shows the quantity annually imported into the United States from the four leading countries of production, and also the whole quantity imported into the Union during the past 18 years:

Import of Pounds of Coffee into the United States.

	Brazil.	Cuba.	St. Domingo.	Java	Total.
1834	26,571,368	19,536,457	15,141,779	5,307,186	80,153,366
1835	35,774,876	29,373,675	19,276,290	4,728,890	103,199,577
1836	46,840,219	17,850,736	11,772,064	8,850,658	103,790,507
1837	33,906,236	29,503,553	9,252,636	1,779,819	88,140,403
1838	27,411,986	33,051,651	11,375,350	2,423,277	88,130,720
1839	48,694,294	26,181,489	9,726,495	5,628,348	106,696,992
1840	47,412,756	25,331,888	9,153,524	4,343,254	94,996,095
1841	59,575,722	17,198,573	12,547,791	6,794,702	114,948,783
1842	61,248,942	14,321,458	11,530,102	9,781,418	112,764,635
1843	49,515,666	16,611,287	10,811,288	1,638,307	92,295,660
1844	95,291,484	18,628,875	20,781,461	8,740,841	158,332,111
1845	78,553,616	1,157,794	13,090,359	3,925,716	108,133,369
1846	97,353,697	2,326,497	12,734,753	2,819,411	132,812,734
1847	94,916,629	6,673,479	19,085,277	17,819,345	156,716,575
1848	110,927,284	2,258,710	16,990,976	3,037,377	150,559,138
1849	122,581,183	4,000,986	13,384,474	4,208,078	165,334,700
1850	90,319,511	3,740,803	19,440,985	5,146,961	144,986,895
1851	107,578,257	3,099,084	13,205,766	2,423,968	152,453,617

Nearly the whole increase in the import of Brazil coffee was, it appears, at New-Orleans, to supply the Western trade. The import of coffee from Brazil in 1844 was extraordinary, amounting to nearly half the whole product of that country. Coffee, up to 1832, paid a duty of 5 per cent.; since that year it has been free. The effect of this change is seen in the following table:

Imports of Coffee into the United States, with the Export and Quantity retained for Consumption, also the Duty and Average Price.

	Import. Pounds.	Export. Pounds.	Consumption. Pounds.	Duty. per lb.	Av. cost. per lb.
1821	21,273,659	9,387,596	11,886,063	5 cents.	20
1822	25,082,390	7,267,119	18,515,271		20
1823	37,337,732	20,900,687	16,437,045		20
1824	30,224,296	19,427,227	19,707,024		20
1825	45,390,620	24,512,568	20,678,062	5 cents.	17
1826	37,319,107	11,584,713	31,734,784		11
1827	50,051,986	21,697,789	28,350,197		11
1828	55,194,697	16,037,964	39,156,733		9
1829	51,133,538	18,083,843	33,049,695	5 cents.	9
1830	51,488,248	13,124,561	38,363,687	2 cents.	8¾
1831	81,747,386	6,056,629	75,702,757		8
1832	91,722,329	55,251,158	40,471,171	1 cent.	10

Import of Coffee into the United States, &c., continued.

	Import. Pounds.	Export. Pounds.	Consumption. Pounds.	Duty.	Av. cost per lb.
1833	99,955,020	24,899,114	75,057,906		10
1834	80,150,365	35,806,861	44,346,505		10
1835	103,199,777	11,446,775	91,752,802		10
1836	93,790,507	16,143,207	77,647,300		10
1837	88,140,403	12,096,332	76,044,071		10
1838	88,139,720	5,267,087	82,872,633		9
1839	106,696,992	6,824,475	99,872,633		9
1840	94,996,095	8,698,334	86,207,761		9
1841	144,987,787	5,784,536	109,200,247		9
1842	112,764,635	5,378,068	107,383,567	free.	8
1843	82,295,660	6,378,994	85,916,666		6¼
1844	158,332,111	8,620,291	149,711,820		6
1845	108,133,369	13,501,972	94,631,397		6
1846	132,812,734	8,275,542	124,537,192		6¼
1847	156,716,575	6,383,583	150,332,992		5¾
1848	150,559,138	6,998,088	143,561,050		5¾
1849	165,334,700	14,380,429	150,954,271		5½
1850	144,986,895	15,287,499	129,699,396		8
1851	152,453,617	3,513,126	148,920,491		8

The population of the United States in 1840 was, in round numbers, 17 millions. The average consumption for the three years 1839–40–41 was 98¼ millions of pounds, which gave a consumption of 5¾ pounds per head. The average for the three years, including the census year 1850, was 143 millions of pounds, and the population was 23 millions, which gave a consumption of 6¼ pounds per head. In 1830 the consumption was only three pounds per head; but the price had ruled nearly double what it did in the three years preceding 1850. In 1821 the consumption, per head, to the inhabitants of the United States was one pound four ounces. In 1830 the proportion had increased to three pounds per head, the foreign price having fallen 50 per cent. After the 31st December, 1830, coffee paid two cents, and in 1831, one cent; after which it was free. The importation in the year 1831 doubled in consequence of the reduced duty; and the consumption, per head, for the four years ending with 1842, averaged six pounds per head, having quadrupled to each inhabitant since 1821. A large portion of the increased consumption, as seen above, is derived from the Brazils; the effect of the production of which country has been to the price of coffee what the products of the Southern States have been to that of cotton. From 1820 to 1840, the Brazilian product increased 1100 per cent., or 155,000,000 pounds. In the same time the consumption in the United States increased 137,000,000 pounds; leaving an increase of 18,000,000 pounds of Rio coffee, besides the enhanced products of all countries, to supply the increased consumption of England and Europe. The result has been, the great diminution in price evinced in the above table. The cost per pound to the consumer was in 1831 further reduced by the removal of the duty; that is, the coffee which cost nine cents in 1830, cost the consumer 16 cents duty and charges. The same coffee now costs seven cents—a reduction of nine cents, which has given the spur to the consumption. In England, foreign coffee paid 16 cents per pound duty, and colonial coffee 8 cents, until 1845, when colonial was reduced to 3d. and foreign to 7d. The consequence is, that while the United States, with a population of 17,000,000, consumed in 1844, 149,711,820 pounds of coffee, Great Britain, with a population of 27,000,000, consumed 31,934,000 pounds only, or less than one-fourth the consumption of the United States. In 1851 the figures remained nearly the same, viz: 148,920,000 pounds in the United States, and 32,564,000 pounds for Great Britain. Now the effect of this increased consumption of Brazil coffee on the American trade, is as follows:

	1834.	1843.	1851.
Import of coffee from Brazil	lb. 26,571,368	49,515,666	107,578,257
do. do. do. value	$2,819,028	3,392,960	8,881,105
Export of U. S. produce to Brazil	$1,586,097	2,409,419	3,128,956

This increased export does not appear to suffice for the compensation of the large increase in the value of coffee purchased; and it is time that some movement were made to check English influence in that quarter, and induce Brazil to place her best coffee customer at least on as favorable footing as others.

DEPARTMENT OF AGRICULTURE.

1.—THE SUPPLY OF COTTON.

The importance of increasing the number of the sources and the extent of the area from whence the raw material cotton can be derived for the use of the British manufacturers is becoming every day more apparent, and is every day more emphatically insisted upon. Mr. Bazley, the chairman of the Chamber of Commerce at Manchester, has been lately lecturing upon the subject before Prince Albert and the Society of Arts. Mr. Bazo ley strongly urged the necessity of encouraging, by all possible means, the growth of cotton in the British colonies; this necessity was rendered every day more urgent by "the limited supply from the United States and the increased competition in the manufacture of cotton." The question is widely and ably discussed in the principal English journals, and we think the general tone of these discussions leads directly to the inference that it must be many years before the cotton mills of Lancashire can depend upon receiving any material proportion of the raw material from any other source than the United States. If this be so, and you cannot increase your cotton-growing lands, nor by improved cultivation, increase the produce of the present cotton-producing area, it is evident that the price of the raw material must rise, from the combined effects of a limited and stationary supply and an increased demand.

The following are some of the striking facts connected with the cotton question:

In 1800 the raw cotton imported into Great Britain amounted to 56,000,000 pounds.
In 1815 to.....100,000,000 "
In 1835 to.....400,000,000 "
In 1851 to.....700,000,000 "

or about 1,000 tons a day. For no less than seventeen-twentieths of this raw cotton Great Britain is indebted to the United States, the remainder being received from India, Brazil, and Egypt. About one-seventh part of the whole amount of cotton imported into Great Britain is exported again in the raw state; therefore six hundred millions of pounds are manufactured—or at least were manufactured during the last year—in the British factories, where they give employment to a million and a half of people. The cotton thus used is disposed of in something like the following proportions: One-tenth wasted in the process of manufacture, in refuse, &c. Of the remaining 550,000,000 pounds, one-fourth is worked up for home consumption, the other three-fourths manufactured into goods for exportation. The value of the cotton manufactures of last year is estimated at £45,000,000, of which about two-thirds are believed to have been paid in wages. About 800,000 tons of shipping are yearly employed by the various operations incident to the cotton trade. Every variation of a farthing in the pound upon the price of the raw material affects the annual consumption of Great Britain at least £500,000 sterling. So perfect is the cotton machinery of England, Mr. Bazley says it far exceeds that of any other country, although France takes the lead of Great Britain in beauty of design in printed cotton fabrics, that cotton yarn has been produced so wonderfully fine in texture as to be imperceptible to the naked eye unless placed upon a dark surface. The length of a hank of cotton is 840 yards; it would require more than 2,000 hanks of this gossamer cotton to weigh one pound. Twenty-five pounds of this delicate fibre would encircle the globe at the equator.

It is a curious fact in the statistics of cotton that about 250,000 barrels of flour, costing about three-fourths of a million sterling, are consumed annually in the process of starching the fibres whilst being spun. Charles Dickens, in a late number of his "Household Words," after enumerating the striking facts of the cotton trade, says:

"Let any great social or physical convulsion visit the United States, and England would feel the shock from Land's End to John O'Groat's. The lives of nearly two millions of our countrymen are dependent upon the cotton crops of America; their destiny may be said, without any sort of hyperbole, to hang upon a thread. Should any dire calamity befall the land of cotton, a thousand of our merchant ships would rot idly in dock; ten thousand mills must stop their busy looms; two thousand thousand mouths would starve for lack of food to feed them."—*London Correspondence of the National Intelligencer.*

2.—NEAT AND PROFITABLE FARMING.

We give below an accurate statement, made by Mr. William P. Butler, of Edgefield, South Carolina, of his management of a few acres of ground in the immediate vicinity of that village. This is not presented as a *very* extraordinary instance of excellent farming; but as one in every way worthy of commendation and of imitation. We will state, from our own knowledge, a fact or two which Mr. Butler has omitted to mention. One is, that the servant, who cultivated this field, attended to all the out door work of Mr. Butler's

yard, such as hauling and cutting wood, attending to stables, &c. The other is that the land itself was originally of barely medium quality.

We will be glad to receive similar reports from others of the net products of their farms. It would tend to awaken a very proper degree of emulation.

We have taken the liberty of copying and publishing the one below of our own accord.

Memorandum of Produce on Farm of fifteen acres of land for the year 1851—*cultivated by a single hand.*

15 acres of corn, averaging 16 2-3 bushels per acre, producing 250 bushels corn, at $1	$250 00
The fodder and tops cured and housed, valued at	25 00
The peas, pea vines, pumpkins and shucks, valued at	50 00
	$325 00
Upon the same land from which the above was gathered, sowed as follows: Seven and a half acres in oats, five in rye, two and a half in wheat. The benefit of pastures worth all of	25 00
	$350 00

DR. TO ——.

7 bushels rye, purchased at $1 25	$8 75	
5 " peas, " 80	4 00	
Cash paid for help	7 00	19 75
Net profit		$330 25

3.—MANAGEMENT OF SLAVES.

Having noticed numerous articles in your very interesting paper on the management of servants, and perceiving they all differ somewhat with me, I will also give my views, as I have every reason to believe that my plan is equally successful. My number of hands is thirty. I have them as near equally divided as possible of males and females. I do this in order that each man may have his own wife on the premises. They then have no excuse for leaving home. I never permit my servants to leave the plantation, unless on business, or to attend church. Neither do I permit other negroes to visit my place. I have seen the inconsistency, as well as every owner of slaves, of their visiting; therefore, I prohibit it. I have them to rise in time to be at their labor by light. Their breakfast hour is eight o'clock. At this meal they have bread, a small portion of meat, a cup of coffee, and butter-milk, which requires fifteen minutes. At dinner, at twelve o'clock, I repeat the meat and bread, and as many wholesome vegetables as they wish. Vegetables I find to be very wholesome, and they then require less meat and bread. In the winter they have one hour, and summer three to rest, in the heat of the day. I don't know that I lose by this, as they work much faster while they are at it. At supper, which is when their day's labor is closed, they have bread and milk. I give them molasses at nearly every meal; that saves meat also. I never heard one of my negroes complain that he did not have sufficient to eat. I never permit them to work after night, as I feel fully compensated with their day's labor. I require them to retire at nine o'clock precisely. The foreman calls the roll at that hour, and two or three times during the night, to see that all are at their places. By having this rule strictly adhered to, I never find any difficulty in raising fowls, pigs and numerous articles that other farmers find difficulty in raising. I never found it necessary to employ an overseer. My foreman answers every purpose, as I live on my plantation and pay my individual attention to it, which every farmer should do who wishes his farm to prosper.

Each of the men has an acre of ground to cultivate of his own, and I reward the one that gathers the largest and best crop. With the proceeds of their crop they purchase their Sunday clothing; they also furnish their coffee, which I permit them to drink every morning for breakfast, as it has some influence to drive off the effect of the dew. I am particular that they keep their clothes neat, as well as their houses and yards, which I find they can do much easier since I prohibit their cooking any thing whatever in their houses. I have all their meals cooked in the kitchen. I have noticed that when they did their own cooking, they did it at night when tired, and their provisions were either not half done or burnt partly up; therefore they were not wholesome. I allow them to have a dance occasionally, but confined to my own negroes. I think it a very harmless amusement. They are much more cheerful and happy when indulged occasionally. I generally give them two or three big dinners, as they are termed, during the year. That also has a tendency to cheer them, and it always contributes largely to my happiness to see others happy, particularly those who are dependent on me. I always give them half of each Saturday, and often the whole day, at which time the men cultivate their crops,

and the women do their household work; therefore, they are never idle. By pursuing this plan with my servants, they perceive that I have an interest in their welfare, and they become attached to me, and have respect for my orders; therefore, I am seldom reduced to the necessity of punishing them. I seldom use the rod, but cause them to work after the other servants have finished their task. Some men will say that this plan will not do to make money, but I know of no man who realizes more to the hand than I. We should all remember that our slaves are human beings as well as ourselves, and heirs of the same glorious inheritance.—*Alabama Planter.*

4.—KEEP A PLANTATION RECORD.

There is a good deal of sound sense in the views of one of our exchanges upon this point. We have ourselves frequently pressed it. Would not agricultural information and experience be thus extended, and improvement advanced? Why not Plantation as well as Mercantile Records?

It is to be regretted that so much of what is learned by observation and experience, should have no more permanent record than that of the memory. That whilst new facts are occurring, and new opinions are forming, that much that is valuable in the past should be obliterated. So that knowledge, which should be always accumulating, often turns out to be little more than a substitution of new ideas for old. To be practically wise, and to leave the benefits of that wisdom to others, we should adopt some plan by which we should have access to the old as well as to the new thoughts and observations which we may have made. It is often worth as much to us to know where we have erred, as to know how we have succeeded. This knowledge can never be fully available, unless we have some record to which we can refer; and we therefore advise that all planters and overseers shall make full notes of the business under their charge. Our interest, as well as our information, is greatly increased by entering into the details of our business. Set down the number of hands, and what the real effective forces. The size of the crop—how many acres in corn—how many in cotton, small grain, &c. The size of each field—the character and condition of the soil—whether old land or new, upland or bottom, soft or hard, and in what to be planted—how many plows, you run—what kind, and the character and condition of the team. Here you have a sort of programme of the year's operations, and when accomplished, you will know what, and how it has been done, and with what sort of instrumentalities; valuable information may thus be derived, and you will be prepared to speak and act understandingly, in determining the question of ability to cultivate or not such a crop with such a force. This information will be still more complete, if in the progress of operations, the time and manner of preparation, as well as the time and manner of planting, shall be fully noted. Also, when and how the crop was worked—its size at particular dates, and when and how much it rained, or what may have been the peculiarity of the seasons, and their effect upon the crop; and when, and under what circumstances, the crop was laid by. These records of the events of each day, with suitable comments, and remarks at the time, cannot fail of benefit to all those who make them—and in a series of years, if preserved, become valuable for reference. And we would not stop here, but note the absence of every operative, and the cause of such absence, each day: and let that report be read out publicly at the end of each month. Then it will be seen who have been at their post, and who not; and the inquiry will arise as to the sufficiency of the excuse of such as are frequently absent, and their own shame, and the sneers of the faithful, will make hypocrisy a thorny garb to wear, and provoke those who have the work to do, to lift the veil, and let the secret out, if deception be practised; and if disease be really the cause, the attention of the superintendent will be constantly directed to the necessity of proper care and treatment. The number of cattle, sheep, goats and hogs, and their condition, ought all to be noted, and these accounts carefully revised at least once a quarter.

In gathering the crop, careful note should be taken of all the operations, showing the time of gathering, and the results, at least as far as to know what each field has done. This, and much more, ought to be done; and none who do it will regret the labor, or feel that it has been lost; and though it may seem a task in the aggregate, to the unskilled penman, when the labor of each day is divided out, it will not be burthensome, and soon become a pleasant and interesting work.

5.—VIRGINIA AGRICULTURAL STATISTICS.

In compliance with a resolution of the House of Delegates, the Secretary of the Commonwealth recently communicated to that body a statistical table of the Agricultural Productions, &c., in Virginia, compiled and arranged from the census returns.

Acres of Land in Farms.

Divisions.	Improved.	Unimproved.	Cash Value of Farms
Trans. Alleghany	1,965,040	6,954,536	49,527,721
Valley	1,580,359	2,187,689	51,079,875
Piedmont	4,347,757	4,045,099	72,230,951
Tide-Water	2,467,079	2,604,882	43,563,058
Totals	10,360,235	15,792,206	216,401,605

Live Stock.

	Horses.	Asses and Mules.	Milch Cows.	Working Oxen.	Other Cattle.
Trans. Alleghany	92,442	1,968	112,850	14,550	248,967
Valley	57,933	869	53,925	1,623	129,074
Piedmont	83,488	7,551	90,518	37,678	186,298
Tide-Water	38,530	11,095	60,326	35,662	104,798
Totals	272,393	21,483	317,619	89,513	669,137

	Sheep.	Swine.	Value of Live Stock
Trans. Alleghany	639,469	535,815	9,861,324
Valley	189,212	244,856	6,696,850
Piedmont	333,373	601,349	10,687,546
Tide-Water	148,450	447,823	6,410,939
Totals	1,310,504	1,829,843	33,656,659

Produce during the Year ending June 1, 1850.

	Bushels of Wheat.	Rye.	Indian Corn.	Oats.
Trans. Alleghany	1,289,245	168,551	9,485,398	3,443,541
Valley	3,771,555	165,765	4,182,234	1,352,616
Piedmont	4,316,753	105,375	11,695,752	3,659,411
Tide-Water	1,835,063	19,239	9,890,935	1,723,581
Totals	11,212,616	458,930	35,254,319	10,179,149

	Pounds of Tobacco.	Wool.	Butter.	Cheese.
Trans. Alleghany	290,717	1,291,472	4,157,256	190,629
Valley	622,246	520,705	2,292,286	93,459
Piedmont	54,286,345	721,199	3,183,691	110,791
Tide-Water	1,603,919	327,389	1,496,146	41,413
Totals	56,863,127	2,860,765	11,089 379	436,292

	Value of Homemade Manufactures.	Value of Animals Slaughtered.
Trans. Alleghany	792,809	1,676,699
Valley	233,465	1,272,368
Piedmont	784,438	2,632,903
Tide-Water	345,600	1,921,016
Totals	2,156,312	7,502,986

6.—RICE.

In many years the crop of rice has neither been so large nor so high as in the year 1847. In 1833 the quantity exported was nearly the same as in that year; but did not sell for so much by nearly $6 per tierce, or 25 per cent. lower than last year's prices.

Export of Tierces from the United States.

	1833.	1848.	1849.	1850.	1851.
Russia	2,352	1,737	3,333	2,870	980
Prussia	28	1,791	96	2,537	1,538
Denmark	5,906	7,304	2,716	5,757	4,328
Hanse Towns	15,318	9,009	17,427	15,436	17,867
Holland	12,897	1,408	5,753	8,232	4,156
Belgium	1,007	6,447	8,951	9,420	5,301
England	29,694	18,833	28,058	26,754	15,728
British W. I.	4,830	4,303	3,955	4,287	2,777
France	19,082	8,942	10,203	11,469	6,784
Cuba	16,204	28,048	32,132	24,304	27,618
Other	26,745	12,531	15,237	15,003	18,513
Total	144,163	100,400	128,861	127,069	105,590
Value	2,744,418	2,331,824	2,569,362	2,631,557	2,170,927
Per Tierce	$19.03	$23.23	$19.90	$23.00	$20.50

The greatest increase since 1842 has been to Prussia, Belgium, the Hanse Towns, and Holland, under the influence of the modified duties upon that article, adopted in 1838, through the influence of our Minister, the late Mr. Wheaton, at the Court of Berlin. The export to England has declined, notwithstanding that the price per tierce has been lower. It is difficult, however, for our rice planters to contend against the cheap rice of the East Indies, in those years when freights are cheap.

The extra demand of England for food last year induced a larger import of rice than ever, and she apparently outbid Prussia for it; and she took less directly from the South, owing to the high freights. The Hanse Towns and Belgium are the avenues into the customs union; and through them and Prussia were last year sent 24,622 tierces, worth $615,550, against $16,453 in 1833, when the crop was larger. The revenues of the customs union increased by this modification of the duties upon rice, and the result so favorable to the incomes of the German governments participating in those revenues, were eminently calculated to promote further reforms in the same direction.

The following embraces general remarks in relation to rice, for a series of years:

Quantities and Value of Rice Exported from the United States.

	Tierces.	Value.	Value per Tierce.
1833	441,144	$2,744,418	$19.03
1838	71,319	1,721,819	24.25
1840	101,660	1,942,076	19.10
1842	114,617	1,907,387	16.65
1844	134,715	2,182,463	16.20
1845	118,621	2,160,456	18.25
1846	124,007	2,564,991	20.50
1847	144,427	3,605,896	24.90
1848	100,407	2,331,824	23.20
1849	128,861	2,569,362	19.90
1850	127,069	2,631,557	23.00
1851	105,500	2,170,927	20.50

MISCELLANEOUS.

1.—IMMIGRATION INTO THE UNITED STATES.

The annual report from the State Department, on the subject of immigration, shows the following facts. The statements apply to the calendar year ending 31st December, 1851. The arrivals of passengers from foreign ports, into the several districts of the United States, for that year, were as given below:

Maine	5,360	South Carolina	1,811
New-Hampshire	108	Georgia	510
Massachusetts	25,579	Alabama	344
Rhode-Island	175	Florida	81
New-York	294,445	Louisiana	52,011
Pennsylvania	18,556	Texas	1,209
Maryland	8,589		
Virginia	29	Total	408,828

This number was classified thus:

Males	245,017
Females	163,745
Sex not stated	66
Of these, there belonged to the United States	29,367
To foreign countries	379,461
Embarked from Great Britain and Ireland	208,248
Embarked from Ireland alone	55,874
Embarked from Germany	72,283
Embarked from France	20,107

The report covers the fifteen months, from September 30, 1850, to the close of the last calendar year; but the above figures embrace only the twelve months of 1851 In my next I shall probably give the exact number for the omitted quarter.

Very erroneous impressions exist in the United States and elsewhere, as to the extent of immigration into the country, and the number of inhabitants of foreign birth now residing in it. In a recent debate in the British Parliament, a prominent member in the House of Lords, the Archbishop of Cashel, stated that there were 7,500,000 Irishmen in the United States; and I have seen in many newspapers what purports to be an elaborate and detailed statement of the number of Germans among us, from which it would appear that there were 5,000,000 of that nation in this country. These accounts are all ridiculous exaggerations. The Report of the Superintendent of the Census furnishes the following very useful table, which enables us to correct these errors, and presents a very clear view of the subject.

The following statement will show the accessions to our population. from immigration, from 1790 to 1850:

Number of foreigners arriving from 1790 to 1810	120,000
Natural increase, reckoned in periods of ten years	47,560
Number of foreigners arriving from 1810 to 1820	114,000
Increase of the above to 1820	19,000
Increase from 1810 to 1820, of those arriving previous to 1810	58,450
Total number of immigrants, and descendants of immigrants, in 1820	359,010
Number of immigrants arriving from 1820 to 1830	203,979
Increase of the above	35,728
Increase from 1820 to 1830, of immigrants and descendants of immigrants, in the country in 1820	134,130
Total number of immigrants, and descendants of immigrants, in the United States in 1830	732,847
Number of immigrants arriving from 1830 to 1840	778,500
Increase of the above	135,150
Increase from 1830 to 1840, of immigrants and descendants of immigrants, in the United States in 1830	254,445
Total number of immigrants, and descendants of immigrants, in the United States in 1840	1,900,942
Number of immigrants arriving from 1840 to 1850	1,542,850
Increase of the above at twelve per cent	185,142
Increase from 1840 to 1850 of immigrants and descendants of immigrants, in the United States in 1840	722,000
Total number of immigrants in the United States since 1790, and their descendants in 1850	4.350,934

The complete report on the census will supply an exact classification of our population by nativity, as well as by age and race. In the meantime, it may be said that the census tables show the actual number of foreigners arrived in the United States from 1790 to 1850—60 years—to have been 2,758,000; of whom it is not at all likely that more than 2,000,000 survived in June of the latter year. In the two years that have since elapsed, about 700,000 have arrived; so that of the whole population, now amounting to 25,500,000, not more than 2,700,000 are really of foreign birth.

About one-half the entire immigration into the United States, for the last twenty years, has been of the Irish people; about one-fourth Germans; and the remaining quarter consists of persons belonging to nearly every nation on the face of the earth. It may be assumed, therefore, that we have 1,350,000 Irish, and 675,000 Germans, among our population.

2.—CHICAGO, ILLINOIS.

As this city is to become one of the poles of the great central rail-road, which is to connect the Gulf of Mexico with the Northern Lakes, the other pole being New-Orleans or Mobile, as the case may be, it is time that something of her condition and prospects should be known to us. We make some extracts from an elaborate paper, published in in the Tribune of that city.

POPULATION.

In 1837, at the first Municipal election, the vote for Mayor stood as follows:

For W. B. Ogden	470
" J. H. Kinzie	233
Total vote in 1837	703

At the Municipal election, March, 1851, the following is the vote cast for Mayor:

For W. S. Gurnee	2,032
" J. Curtiss	1,051
" E. B. Williams	1,089
" J. Rogers	230
Total vote in 1851	4,402

The first census returns of the city which we have been able to procure, are for the year 1840. In the years 1841, 1842, 1844, and 1851, no census was taken. The following are the returns for the other years:

1840	4,479	1847	16,859
1843	7,580	1848	20,023
1845	12,088	1849	23,047
1846	14,169	1850	28,269

The census of 1850 was taken by the United States Marshal, on the first day of June, and shows an increase from August, of the previous year, of 5,222. If the ratio of increase has not fallen off since then—and our best informed citizens are of opinion that it has increased—the population of Chicago, on the 1st day of January, 1852, was a little over 40,000.

In 1839 the total valuation of property in Chicago was $236,842. In 1851 the books of the assessor show a valuation of $8,562.717—of which $6.804,262 was real estate.

COMMERCE.

We subjoin a table of the value of imports and exports, from 1836 to 1848 inclusive:

	Imports.	Exports.
1836	$325,203 90	$1,000 64
1837	373,677 12	11,665 00
1838	579,174 61	16,044 75
1839	630,980 26	33,843 00
1840	562,106 20	228,635 74
1841	564,347 88	348,862 24
1842	664,347 88	659,305 20
1843	971,849 75	682,210 85
1844	1,686,416 00	785,504 23
1845	2,043,445 73	1,543,519 85
1846	2,027,150 00	1,813,468 00
1847	2,641,852 52	2,296,299 00
1848	8,338,639 86	10,709,333 40

CORN.

The following table shows the shipments for a series of years:

1847	67,315 bush.	1850	262,013 bush.
1848	550,460 "	1851	3,221,317 "
1849	644,848 "		

WHEAT.

The following table shows the shipments of wheat from this port for ten years:

1842	586,907 bushels.	1847	1,974,304 bushels.
1843	628,967 "	1848	2,169,000 "
1844	891,894 "	1849	1,936,264 "
1845	956,860 "	1850	883,644 "
1846	1,459,594 "	1851	427,820 "

GALLERY OF INDUSTRY AND ENTERPRISE.

NICHOLAS LONGWORTH, OF CINCINNATI.

WITH A PORTRAIT.

No. 20.

THIS gentleman, who is decidedly at the head of the vine-culturists of the United States, and who has done more perhaps than any individual in it for the promotion of a branch of industry which seeks to make us independent of foreigners, and to retain at home millions that are now annually sent abroad, deserves a place in our gallery of "useful citizens."

The Pennsylvania Horticultural Society paid a deserved tribute to Mr. Longworth a few years ago, in tendering him its thanks; and acknowledging its satisfaction that "the untiring zeal and energy with which he had for so many years, and at such great expense, prosecuted the subject of wine-making, had been crowned with so much success." The Cincinnati Society, about the same time, in referring to his "Sparkling Catawba," declared, "a more exquisitely flavored champagne it would be difficult to meet with among the most celebrated foreign brands." To this testimony we trust that it will not be amiss to add our own.

Of the 1,200 acres cultivated in grapes by 295 proprietors and tenants in and about Cincinnati, Mr. Longworth has 122 acres, which employ 27 tenants. He has also two wine cellars, and is interested in a third, and has invested in the business a capital of $100,000. Last year 75,000 bottles of Catawba were prepared at his cellars, and in the present season he expects at least 100,000 bottles.

From the numerous and invaluable papers which Mr. Longworth has contributed upon the vine culture and wine making, we extract the following, which will be found most interesting in giving an account of the origin of the business in this country, etc.:

"It is some fifty years since the attempt was made at Spring Hill, in the vicinity of Philadelphia, I believe by a society of gentlemen, under the superintendence of a foreign wine cooper. Foreign grapes were tried, and, as usual, without success. One grape only was found to suit the climate, and was the grape now known by the name of the Schuylkill muscadel, or Vevay grape. It is a native grape of Pennsylvania, and was first found on the banks of the Schuylkill River. To give the wine made from this grape reputation, it was called the Cape grape, and was said to have been obtained at the Cape of Good Hope. The undertaking proved a failure; and the next attempt was by the Swiss emigrants, at Vevay, Indiana, on the Ohio River, seventy-five miles below this city. They imported the best wine grapes of Switzerland, but found them unsuited to our climate, and hearing of the Cape grape at Spring Hill, obtained plants, and for many years cultivated this grape extensively. It is a coarse grape, but an abundant bearer, and perfectly hardy, and less subject to rot than any other grape we cultivate. From it a rough, red, hard wine was made, in consequence of their pursuing the Swiss custom of fermenting in the skins. But little wine was imported to the back woods in that day, and it met a ready sale. In a few years the importation of foreign wines increased, and our Buck-eyes and Hoosiers became proud, and the wines of Vevay became unsaleable, and were chiefly used for making of sangaree, for the manufacture of which it was preferred to any other. The cultivation languished, and I have not, for many years, heard of any of the wine being for sale. About the time they began to decline the cultivation, I commenced it, believing a good wine could be made from the same grape, by a different process of manufacture. I put a German vine dresser on a hill, on Bold Face Creek, about one mile and a half from the river, and four miles from the city. I planted, in the first instance, the Vevay grape only, gathered the grapes as soon as ripe, put them on the press as soon as gathered; and from them made a wine of the color of Madeira, and resembling Madeira of the second quality. I added from ten to sixteen ounces of sugar to the gallon of must, and, after fermentation, brandy, as is customary with Madeira. I soon after obtained the Catawba grape, and some other native grapes, from Major Adlum, of Washington City. The Catawba was the only one of them I found worthy of cultivation; and of this grape I formed, and still entertain, a high opinion, as a wine grape. In a letter to me, Major Adlum says: 'I found this grape in the garden of a German near Washington. Of its origin, I know

nothing. In introducing this grape to public notice, I have done my country a greater service than I should have done, had I paid the national debt.' I entirely concur in this opinion. Most grapes do not impart their aroma to the wine, but a new one is formed by fermentation, which leads foreign wine merchants to flavor their wines. The wine from the Catawba grape retains the aroma and muscadine flavor, in all its stages. Our Germans, in the first instance, objected to this peculiar flavor; but all now unite in giving the wine from this grape a preference over the German wines. Major Adlum erred in making from this grape a sweet wine, by the addition of much sugar to the must. I saw his error, and for some years put from six to ten ounces of sugar only to the gallon of must, and the wine was suited to our palates; for at that period, we had not been accustomed to the celebrated dry Hock wines, and should have pronounced them hard cider. Our German emigrants learned us better, and we now seldom add sugar to the must; but I would still recommend it, in seasons when the grape ripens badly. When added before fermentation, I do not believe it can be distinguished from the saccharine principle in the grape. Brandy would be highly injurious to this wine, and I have never had it run into the acetous fermentation, or become ropy, which is often the case with the light wines of Europe."

The following grapes have been raised and exhibited by Mr Longworth—Ohio-Catawba, Graham, Elsinburg, Clarkson's Eastern Catawba; Indiana (of no value;) Black Fox, ditto; White Fox, do.; Piqua, do.; Herbemont; Giant Catawba; Minor's Seedling; Norton's Virginia Seedling; Improved Purple Fox; Red Fox, of no value; Virginia; Missouri; Helen; Lake; Guignard; White Seedling Catawba.

In addition to his claims to consideration as a *vine culturist*, Mr. Longworth deserves the highest praise for his efforts in behalf of the *strawberry*, which now so greatly distinguishes the markets of Cincinnati. He discovered and made public, twenty-five years ago, the secret that certain fine varieties of the strawberry are more productive in the pistillate than staminate organs, and that when beds are planted with a due proportion of staminate or male plants, say one-tenth, the crop is far more abundant, and the fruit greatly improved. Though opposed in his views at first, they came at last to be almost universally admitted. He has contributed an interesting treatise on the culture of this plant.

The grandfather of Mr. Longworth having in the Revolution adhered to the cause of the king, the family estate was confiscated, but would have been bought in by a son, who had the means in continental money, had not the father prevented, declaring that if the power of the crown fell, he would fall with it. He never reclaimed the value from the British. The mother of Mr. Longworth was a stern whig, and by the influence which it brought her, on one occasion, she obtained the release of her husband, who was a prisoner in the hands of the patriots—but who had not taken an active part in the cause of the royalists.

Nicholas Longworth was born in Newark, N. J., in 1783, but was taken at an early age to Savannah, Geo., by an elder brother, and there entered into mercantile business. The climate of Savannah not agreeing with his health, he was soon after sent back to Newark to be prepared for a course of law. In 1804 he removed to Cincinnati, and entered upon the study of the profession in the office of Jacob Burnet, Esq., then at the head of the bar of that city. In three years he was admitted to practice, and continued to do so until 1819, when he retired, investing his savings in lands in and around Cincinnati—an investment which is the secret of his present enormous fortune. A single incident is mentioned of his having received in lieu of two stills, his fee for defending a client charged with horse stealing, thirty-three acres of ground, now in the heart of Cincinnati, and valued at about two millions of dollars. What the present value of his property is, we are not informed, though his taxes in 1850 were stated at $17,000, being the largest amount paid by any individual in the United States, William B. Astor, excepted.

Mr. Longworth, though peculiar in the nature of his beneficence, has often acted with great liberality, and in general proceeds upon a system which is his own. On one occasion he returned the early kindness of his brother in Savannah by the payment of $35,000, thus releasing his property from execution; and when upon the death of that brother he was made *sole* legatee of his fortune, he at once secured to the other members of the family what he considered to be their shares.

On a late occasion he made a gift of four acres of land in the heart of the city, for the construction of an observatory, and on being charged, after the splendid structure was completed, by some unknown person with the desire of benefiting his own property in the vicinity, he offered to put up a building, equal in expense, with appropriate promenades, etc., for public use, if the individual in question would make a similar donation of four acres! Says Mr. Charles Cist, in his Sketches of Cincinnati:—"Mr. Longworth

has his own ways and views in affording relief and assistance to the necessitous. That he is governed by conscientious motives, no one ought to doubt, who learns, as he easily may, that Longworth is a supernumerary township trustee, whose office is crowded at regular hours with twenty, thirty, or fifty miserable objects, whose cases he examines into, and disposes of at a cost of time and patience, which most men would, ordinarily, not submit to. Relief is then provided for, on a system which protects itself from being made a means of fostering idleness or mendicity. All this is done obviously on principle, since he must be a loser pecuniarily, as well as in precious time, by such a course.

Mr. Cist says again, and with this extract we must close our brief biography :"

"Mr. Longworth is a problem and a riddle : a problem worthy of the study of those who delight in exploring that labyrinth of all that is hidden and mysterious, the human heart, and a riddle to himself and others. He is a wit and a humorist of a high order ; of keen sagacity and shrewdness in many other respects than in money matters ; one who can be exact to a dollar, and liberal, when he chooses, with thousands ; of marked peculiarity and tenacity in his own opinions, and yet of abundant tolerance to the opinions, however extravagant, of others—a man of great public spirit, and sound general judgment. All these things rarely accompany the acquisition and the accumulation of riches.

"In addition to all this, it would be difficult to find an individual of his position and standing so perfectly free from pride—in the ordinary sense. He has absolutely none, unless it be the pride of eccentricity. It is no uncommon circumstance for men to become rich by the concentration of time, and labor, and attention, to some one object of profitable employment. This is the ordinary phase of money-getting, as closing the ear and pocket to applications for aid is that of money-saving. Longworth has become a rich man on a different principle. He appears to have started upon the calculation that if he could put any individual in the way of making a dollar for Longworth, and a dollar for himself at the same time, by aiding him with ground for a lot, or in building him a house on it—and if, moreover, he could multiply cases of the kind by hundreds, or perhaps thousands, he would promote his own interests just in the same measure as he was advancing those of others. At the same time, he could not be unconscious, that while their half was subdivided into small possessions, owned by a thousand or more individuals, his half was a vast, a boundless aggregate, since it was the property of one man alone. The event has done justice to his sagacity. Hundreds, if not thousands, in and adjacent to Cincinnati, now own houses and lots, and many have become wealthy, who would in all probability have lived and died as tenants under a different state of case."

JOHN GRIGG, OF PHILADELPHIA.

WITH A PORTRAIT.

No. 21.

This gentleman's connections and relations with the South have been so large, and extend over so long a period, and he is moreover so well known to our citizens familiar with the publishing business of the country, that a few brief notices of his career will not be inappropriate under this head of our magazine.*

John Grigg, the well-known, although now retired Bookseller, of Philadelphia, began life an orphan farmer boy. A restless spirit drove him to the water, and he early exchanged the monotonous life of the farmer for the excitements of that of a sailor. The activity of the young and enterprising not unfrequently takes this direction. Amid the perils of the Bay of Biscay, and the tempests of the West Indies, he had ample opportunities by which he did not fail to profit, to become thoroughly versed in the whole art of seamanship ; a calling, than which, there is not one, perhaps, better calculated to bring out the qualities of prompt decision and self-reliance. We do not know how long his experience in reefing and steering lasted. In fact, our knowledge of the minute details of his life is not so full as we could wish. Some thirteen months of his early life were passed at Richmond, Virginia. The quickness and original force of his character, the zeal with which he pursued his studies, and resumed them when broken off, and his devotion to the mathematics, in particular, for which, at this early age, he manifested that taste and capacity which often accompany the talent for practical life and affairs, attracted the notice of the relatives

* This biography is extracted from a more elaborate one published some time ago in Hunt's Merchants' Magazine, a work which Mr. Grigg thinks should be in the hands of every merchant and in every public library in the Union. Having said this much, we should be guilty of a false modesty perhaps not to add, since Mr. Hunt has mentioned the compliment to himself, that Mr. Grigg has paid the Review a similarly high one, and thinks that the people of the North would learn a good deal of southern matters, and have their views changed upon many points in which there have been sectional ill feeling, from its perusal. We mention this as the opinion of an intelligent northern gentleman, and because, whilst the South sustains every work from that quarter, we have not twenty subscribers there.

with whom he lived, and led them to anticipate a bright future for the young student. The lady of the house, herself very fond of the mathematics, assisted him in his studies. But he was poor, he had his own way to make in the world; and soon leaving Richmond, he went to Ohio, eager for the fray of life. There we find him engaged in the duties of Clerk of the Court of Common Pleas and Chancery of Warren County, Ohio, with the sole charge of this responsible office. These duties he performed to the satisfaction of all, and won for himself the esteem and friendship of such men as Mr. Justice McLean, who had not then left the courts of Ohio for the place which he adorns on the bench of the Supreme Court of the United States, and of the Hon. Thomas Corwin, our distinguished Secretary of the Treasury. During the whole of Mr. Grigg's residence in Ohio, Mr. Corwin and he were intimate friends and "bosom cronies," such friends as young men are who know each other perfectly, and in some respects are alike in tastes and habits. "I can say of him," (our quotations are from a recent letter from Mr. Corwin,) "with entire confidence in the opinion, that he was from his boyhood up, through every change of place, occupation and fortune, an earnest, frank, sincere, honest man. After entering the Clerk's office, he very soon made himself master of every detail, and became in fact clerk of the court. I know he often wrote from fifteen to eighteen hours, every twenty-four, for weeks together."

Symptoms of disease were the consequence of such habits of industry and intense application, and made change of occupation necessary. But those habits had won for him a name and character which soon enabled him to enter on a different and less harassing pursuit. Joel Scott, Esq., was at this time proprietor of a manufactory of woolen cloths, in Scott county, on the Elkhorn Creek, in Kentucky, a region remarkable for the beauty of its scenery, the excellence of its water power, and the fertility of its soil; the remoteness of the Atlantic cities, and the war prevailing at that time with England, operated as the most effectual of protections, and the woolen manufacture was a highly lucrative business in Kentucky; new proprietors commenced the manufacture of all descriptions of woolen cloths, on a large scale, and with much energy and apparent skill. It was early in 1815 when Mr. Grigg became superintendent of Mr. Scott's establishment, at Georgetown. His new situation tasked the best energies of his mind and character. He was at times placed in the most trying circumstances, and on one occasion left suddenly with the sole charge of the whole establishment upon him. But the same quickness and assiduity which made him an efficient clerk of court, made him the best of superintendents, also. The greater experience of the Old Country might be challenged to produce a wool manufacturer who knew better how to assort a fleece into five or six different qualities, or had a quicker and more practised eye to see when a thing was well done, from the washing of the wool to the finishing of the cloth.

The year 1816 brought with it still another change of residence and occupation. Mr. Scott parted from his assistant with reluctance, but his restless activity was ambitious for a wider field and higher range. He must go to the city; he must try his fortune as a merchant in Philadelphia. From country to city, an unbroken current of youthful hope, energy and character is ever setting, which purifies and renews, it is true, but too often leads to the shipwreck of weak principles and sanguine hopes. Were it not for new blood from the country, cities would grow sickly, just as citizens' children, after one or two generations, become puny and weak. But the city influence is strong, and it is an even chance whether it will corrupt, or the country influence will purify. Hence the danger of this indiscriminate eagerness of the young to rush into city life. But if they all brought with them the same power to resist, and the same power to do for themselves, which John Grigg carried with him to Philadelphia, this tendency would be less to be regretted. It was his intention to enter a wholesale dry-goods house. But the year 1816 was one of general embarrassment. No opening presented. Like Franklin, before him, Mr. Grigg found himself in the city of Philadelphia, comparatively without means, without employment, with no outward support, but upheld by that sure inward resource of *self-reliance*, which is the centre of moral gravity. However, he was about giving up his plan, when he made the acquaintance of Mr. B. Warner, a bookseller, of very extensive business. Mr. Warner seems to have been a man of quick appreciation of character. He at once conceived a high opinion of Mr. Grigg's character and abilities. Mr. Warner was a *Friend*, and a friend indeed, in every sense, he proved to his young clerk, who at once entered his house, and justified the flattering opinion of his employer, by the characteristic energy and clearness of head which he brought to bear upon his new pursuit. Versatility is said to be an American characteristic, and few men have possessed it more strongly than Mr. Grigg. The readiness of adaptation to new pursuits, situations and emergencies, which made him efficient in each of the varied callings with which within a few years he had already made himself familiar, marked his career through life. It was his favorite opinion that all difficulties can be overcome by perseverance—that no man or boy can tell what he can make of himself until he tries. He made it a rule of life when difficulties appeared, to clap on double energy, and like Hercules, to rely upon the strength of his own shoulders to get the wagon out of the ditch.

He had need of all his own resources of character in the calling which he had adopted. But it was the last change of pursuit he was to make. He had found a business whose range of operations suited his abilities and ambition. The difficulties of the bookselling business are said to be peculiarly great. This is the consenting opinion of those familiar with it; and it is obvious how much tact and discrimination, sagacity and careful study of the public taste, it requires. So connected is it with literature, that a mistaken literary judgment may involve the most serious business consequences. Dazzling projects, which on paper give assurance of brilliant results, when put in execution prove worse than failures. It was not, however, until a few years later, when he had worked his way up to the higher walks of his business, that these qualities were called out into most active exercise. But the same energy

which was displayed in the more responsible station to which he soon attained, marked his performance of the humbler duties of a clerk. This devotion, this determination to do "whatever his hands found to do" "with all his might," whether as clerk, or as principal, as banker, manufacturer, clerk of court, or publisher, is the secret of his success —of all success in business. The late William Gray, of Boston, in his days of opulence, was tauntingly reminded that he had once been a drummer. His quick retort contains volumes of the practical philosophy taught by such lives as his and Mr. Grigg's. "Did'nt I drum well, though?"

Mr. Grigg has always been remarkable for strength of memory. One of his feats at this time, was to learn the name of every book in the store, its price, and the place where to find it, so that he was able, at once, to lay his hand upon it when called for. It was thus he commenced his clerkship. In a few days, this readiness and aptness began to excite the jealousy of an older clerk, since deceased, who was nominally above the last comer; and his own emulation was chafed at a superiority in position in the establishment of those who were inferior to him in fact. To avoid these unpleasant feelings, Mr. Warner proposed a journey to Virginia, for the purpose of settling the affairs of a firm in that state, with which his house was connected, and which had been dissolved by the death of one of the partners. This commission Mr. Grigg gladly undertook. How successfully he performed this duty, every duty belonging to the new calling which was to be the business of his life, is best shown by the testimony left by Mr. Warner, on his death, a few years after. A memorandum was found attached to his will, which contained a legacy more valuable than gold—a legacy of *golden opinion*. Taking into view, the possibility of his business being continued after his death, he thinks "one or two young men in whom confidence can be reposed" might be found to take charge of it, and adds, "I consider John Grigg as possessing a *peculiar* talent for the bookselling business. *Very industrious*, and from three years observation, (the time he has been employed in my business,) I have found nothing in his conduct to raise a doubt in my mind of his possessing correct principles." Praise like this is the noblest of rewards, the most stirring of incentives.

The executors of Mr. Warner could not do otherwise than confide to one in whom he expressed such high confidence, and so explicitly pointed out as his successor, the settlement of the affairs of the firm. Nor was this a slight undertaking. The business of the house had been immense: connected with it were numerous agencies and branches, it had dealings with various houses at the South and West, and the settlement of it rendered frequent journeyings necessary. During one of these journeys, an incident occurred which is too characteristic of the days of stage-coach traveling, and of the determined energy of Mr. Grigg's character to be omitted. He was at Charleston. It was the latter part of December, 1825, and by Christmas day he must be in Philadelphia. He pushed forward, traveling day and night; at Baltimore, the steamboat which usually connected, was found to have left off running, and the travelers were forced to take to the mail coach. But every seat was full when Mr. Grigg arrived; there was no alternative for the determined traveler, weary and excited as he was by incessant journeying for seven long days and sleepless nights, but to ride outside with the driver. The day, or rather the night, was cold, the air was full of sleet, the road miry. But to the driver's seat he mounted, and pushed on. At Havre de Grace another driver took the reins, who was unacquainted with the road; it was long after dark, and the "insides," who began to be fearful of their necks as the coach plunged and tossed in the mire, grew clamorous for putting back until morning. But Mr. Grigg was determined that the stage should go-a-head, and be in Philadelphia by Christmas day, and besides, they carried the mails, and a public conveyance must not be delayed! So he procured a lantern, and going before the coach, piloted the travelers through the darkness and mire, for about two miles. Finally mounting the box again, he took the reins into his own hands, and daylight saw the delighted travelers, arrived at Elkton, and well on their way. They at once admitted him to a seat inside, upon their knees. And early on Christmas morning Mr. Grigg *was* in Philadelphia.

He was now once more without fixed occupation, but not, as before, without means; above all, not without experience, which is better than money. He had not only saved something, but had mastered the details of a difficult branch of business. For an instant, however, Mr. Grigg seems to have been undetermined what course to pursue. Conversing at this time with a friend, Joseph Cushing, Esq., of Baltimore, he explained his situation, and laid before him his prospects. "Rely on yourself," said his friend, "you cannot fail to succeed. You will yet astonish yourself and the book trade of the whole country." The next day Mr. Grigg hired a store, with lodging apartments back of it, and commenced the business of book selling on his own account.

Thus prudently and carefully did he set about the fulfilment of this prophecy. How brilliantly it has been verified, the entire book trade of the country can testify. Upon the same spot where he began, Mr. Grigg conducted his business with ever increasing success and widening range of operations. The genius and enterprise of its head pervaded the house, and all its operations were conducted with that unity of aim and effect, which a commanding mind knows how to give to the most multifarious details, and to impress upon all who come within its range. Nor was the influence of this almost military promptness and efficiency of operation confined to his own house. Mr. Grigg became noted among his brethren for his peculiar faculty. A nervous energy, a rapidity of calculation and resolution, a promptness to act, marked his entire course.

The change which Mr. Grigg effected in the book trade of the country, has been described as nothing less than a revolution. Constable, the famous bookseller of Edinburgh, Sir Walter Scott's publisher and partner, was fond of calling himself the "Napoleon of the realms of print," a compliment to himself hardly justified, except by the boldness, bordering on rashness, of his operations. Mr. Grigg's friends had better reason, in many respects, for bestowing, as they were sometimes in the habit of doing,

the same honor upon him, for to boldness and rapidity he united cool and clear judgment, the quick eye to look *a-head before going a-head*.

Through the financial tempest of 1836 and 1837, Mr. Grigg steered his course safely and successfully, and although engaged in a business of vast extent during the whole perilous financial period from 1833 to 1840, was among the few who suffered little by the revulsions of the times. He was largely interested in stocks and other species of property most liable to be affected. But he saw from afar the dangers which were threatening the business of the country, and his quick foresight early anticipated the inevitable issue of the unequal contest between the government and the United States Bank. He promptly took measures to change his investments from stock to real estate, and became the owner of large properties in Mississippi and Illinois, as well as in Philadelphia. When the shock of the crisis came, his foot was on the *ground*, and, he stood firm.

Mr. Grigg has not, we thus see, entirely confined himself to the line of his peculiar business. Men of wealth never show a truer public spirit, than when they step forward to aid with hand and purse a great public enterprise in its infancy. Public works, are, for the most part, anything but attractive investments, at the outset, and it is oftener a case of self-sacrifice than of self-interest to invest money in new projects of this kind. Mr. Grigg was an early and prompt friend and large subscriber to the stock of the Pennsylvania Rail-road, a work of the same interest and importance to Pennsylvania, as the Erie Rail-road is to the State of New-York, and the national value of all these great works connecting the sea-board with the West, need not to be enlarged upon. We have already referred to the circumstances under which Mr. Grigg was induced to invest largely in real estate. Philadelphia is indebted to him for numerous elegant dwellings which adorn her beautiful streets. Besides the real estate investments in Mississippi, in 1836, he entered extensive tracts of the public lands in the Sangamon country, Illinois, of which he has from time to time sold large portions. In his dealings with the numerous purchasers of his land, Mr. Grigg's uniform fairness and liberality have made him universally popular, an exception to the general rule as to non-resident land-owners, who are by no means favorites at the West.

EDITORIAL AND LITERARY DEPARTMENT.

LAFITTE.

PONTOTOC, MISS., *20th May*, 1852.

MR. EDITOR,—In common with the readers of the "Review," I have noticed with lively interest, the controversy which has sprung up in relation to the fact of the celebrated Lafitte's identity, and the still more important, and to Americans, more interesting fact, of his participation in the battle of New Orleans. This is a matter about which there should be no conflict of history. Lafitte was there, or he was not there. History should assert either the one fact or the other with entire certainty. And without presuming on my own part to determine the point affirmatively or negatively, I will communicate the following incident, merely as a matter of evidence to give conviction or confirmation to the opinions of others. The fact to which I allude was communicated to me in a private conversation, by the late Robert L. Cobb, Esq., of Columbia, Tennessee. Here a question may be suggested as to who was Robert L. Cobb? This question can be very easily and satisfactorily solved. Robert L. Cobb, in the early part of his life, was a physician, and at the time of the battle of New-Orleans, was surgeon to one of the regiments which composed General Coffee's brigade. He was a scientific, skilful, and meritorious gentleman in that department. After the war of 1812, he prepared himself for the bar, and located in Columbia, Tennessee, where he died some years since, if I am correctly informed. As a lawyer, he was learned, able, and gifted, and for many years he had an extensive and lucrative practice; while, as a man of integrity, probity, and honor, no man ever stood higher in that intelligent and public spirited community. But to the incident—it is this. A short time previous to the battle of New-Orleans, General Coffee's brigade was stationed at Fort Adams, which, I think, was not far from the vicinity of Baton Rouge, in Louisiana. And whilst there, were greatly destitute of the necessary military stores, such as hats, shoes, blankets, and comfortable clothing of every description. Whilst in that condition, General Coffee, from some source or other, received information that one or more of Lafitte's "warehouses" had been discovered among the bayous and passes in the bottom beyond the river from his camp, filled with such articles as he needed for his soldiers. General Coffee determined that if this information was correct, as Lafitte was then an outlaw, with his hand against all nations, that he would rifle his warehouses, and appropriate such articles as he needed to the use of his troops. For the purpose of ascertaining the truth of this information,

General Coffee ordered Captain Gordon's company of spies—a celebrated company—to leave the camp as secretly as possible, and go with the individual, who brought the information, a guide, and ascertain the truth or falsity of his statements. This order was given about 11 o'clock A. M., and Gordon's company left the camp about noon. In the course of something near two hours afterwards, say about 2 o'clock in the afternoon, a runner or messenger came from General Jackson to General Coffee with the information, that the British had either appeared on the coast, or had landed, or had driven in the gun-boats on the Mississippi; and which, I will not pretend to state positively—my memory not serving me faithfully here—that he expected an attack upon the city hourly, and that he must hasten with all his available force to the defence of New-Orleans. General Coffee immediately recalled Gordon's spy company, put his brigade in motion, and hastened to General Jackson's assistance. During the busy scenes that followed, leading a life of constant activity, excitement, and peril, General Coffee soon forgot all about the expedition of Gordon's spies upon Lafitte's warehouses until it was recalled to his mind afterwards in a very peculiar and significant manner. General Coffee had not been thrown with Lafitte before, nor during the battle of the eighth. But they met at a ball that was given by the citizens of New-Orleans to the officers of General Jackson's army shortly after the battle was over. Coffee did not arrive at the hall till late, and most of the officers of his brigade had preceded him, and were standing about the rooms when he arrived, noticing every object of interest and notoriety which presented itself, "beautiful women and brave men," etc., etc. Among those objects of interest was the celebrated Lafitte — the Barratarian pirate. Mr. Cobb was standing but a few feet from Lafitte when General Coffee entered, and witnessed an introduction which occurred between them. When Lafitte's name was called, Coffee immediately recollecting that he had been associated with Lafitte's name in some way or other, in endeavoring to recall the circumstances to his mind paused, and exhibited a good deal of hesitation in his manner. This, Lafitte, who appeared to be on the alert for slights, noticed, and attributing Coffee's hesitation to a repugnance of recognizing him as a gentleman on account of his previous reputation, immediately drew himself up with haughtiness, and in a hasty manner advanced a step or two, and exclaimed, with peculiar emphasis, "Lafitte, the pirate!" Coffee immediately discovering the error he had committed, advanced to Lafitte, and taking him by the hand, apologized for the tardy manner in which he recognized the introduction, and explained the cause of his hesitation.

This is the incident related to me by Mr. Cobb, as having occurred under his own observation. He related it to me as being true, and I believe him incapable of telling a falsehood about anything. He farther informed me that it was as well understood, according to his recollection, that Lafitte was a participant in the battle of New-Orleans as that General Jackson was there. He added, "I did not see him in the battle, nor did I see General Jackson in the battle, but I know he was there; so I know that Lafitte was there, and I saw him afterwards." This conversation occurred in Columbia, Tennessee, in the month of January, 1840. He, moreover, gave me the description of Lafitte's person, but it was by way of comparison to a gentleman then living in Columbia, and as the impression made on my mind as to Lafitte's personal appearance, is associated with that individual, the description of Lafitte might, in truth, turn out to be that of another man were I to attempt it.

I have thrown off this letter hastily and crudely, and it is at your disposal. If you think the facts, relative, worthy of publication, you can publish it; but individually, I have no wish to appear in print. Very respectfully, W. H. K.

PROVISION FOR THE POOR AND DESTITUTE.

THOUGH we will not undertake to say exactly how far the plan proposed by our correspondent for the amelioration of the poor, and the prevention of crime may be practicable, there can be no doubt that great room for reform still exists in the systems of alms-houses and houses of refuge throughout the country. Mr. Vethake, in his able work upon political economy, after reviewing the subject of *pauperism* in detail, and the plans for its relief, arrives at very nearly the same conclusions with our correspondent. Indiscriminate relief increases the evil it is intended to remedy. The pauper must support himself by his labor. If this labor be without other consideration than mere support, all incentive to exertion is removed, and moral advancement prevented. If it be paid for at the *full prices*, the half of society will be in no small danger of taking to the alms-house, and the state will become, in the event, the great monopolist of labor. The subject, however, is full of difficulties, and has baffled philanthropy in every age of the world.

NEW-ORLEANS, *July* 10, 1852.

J. D. B. DE BOW, ESQ.

Knowing the desire you have of giving publicity to all subjects of importance to our country and city, I have taken the liberty of submitting to your consideration the plan of

a home for the destitute, which I have submitted to our city councils for their approval and adoption; by which I think it has been shown a half million dollars will be saved to this city annually, if it is established. It has been also shown that in Massachusetts and New-York, where the alms-house and house of refuge system has been fairly tested in the last ten years, by the expenditure of millions of dollars in those institutions, the evil (pauperism) which they were intended to alleviate or cure, has increased 28 and 30 per cent. per annum—thus establishing beyond controversy the utter uselessness of that system.

The home, here proposed, is intended to operate upon the pride and interest of the destitute; also to develop and cultivate whatever good qualities may remain to him, by removing every possible cause of degradation from him, causing him to pay in full for all the privileges he may enjoy by his labor rendered to the institution, the only means in his possession.

PLAN.

Let the council provide buildings, work, rooms, &c., &c., adapted to the wants of the destitute, furnish with necessary substantial furniture, bedding, clothing, provisions, tools, and implements, with a small stock of raw material to commence operations; also, if possible, a sufficient amount of land to raise stock and vegetables for consumption.*

Call this place Home, simply HOME.

Here let it be known that every man, woman, and child over ten years could at all times procure the absolute necessaries of life for their labor, by simply knocking at the door, answering questions of statistical importance only, their answers to be taken in writing, and signed by the applicant.

The liberty of the inmates to be restricted only whilst they are indebted to the Home, in order to secure it from loss by imposition.

A rigid moral deportment must be required from all the inmates, but no religious dogmas should be introduced or forced upon them against their will, for reasons which all can appreciate as well as I can explain.

Should the inmates desire to remain longer than is necessary to repay the institution for all the privileges received, they should be allowed a safe, low, but *not unreasonable compensation* for their extra labor, to be paid in cash on leaving, or at such other times as may be found convenient and desirable.

A rigid account must be kept with each and all of the inmates. Also a correct statistical record of all facts important to be known, together with a register of the conduct and deportment of each individual; and in addition, a strictly honest administration of the finances of the institution. From all these, reliable data of the utility of such institutions can at any time be obtained. Correct detailed reports should be made public quarterly to the world.

A resident superintendent and secretary are the only officers who must necessarily receive salaries, as all the foremen and under superintendents can be selected from among the inmates, and be allowed a small increased compensation for superior merit. The total expense of the institution can and should be derived from the product of the labor of the inmates, also a small excess sufficient merely to extend its influence it deemed necessary, but nothing beyond that should be required from it, else it might become a money-making concern, and a monopoly of associated labor of the most odious kind in the hands of a few designing men.

To guard against such a contingency, the control of the Home should be given to citizens of known respectability, benevolence, and capability; to be elected annually by the boards of council, as well as the superintendent and commissioners of the New-Orleans Home. The superintendent should be ex officio president of that board, and have the casting vote in case of a tie.

A general system of moral, mechanical, and industrial instruction should be inculcated. and that prominent republican axiom, "that useful labor is ennobling to man," should also be forcibly impressed upon the minds of the inmates.

From such an institution, so established, the most striking results which may be reasonably expected are:

1st. The annihilation of absolute destitution, and the vast amount of suffering resulting from it. 2d. A decrease of crime produced by destitution amounting to 50 per cent., in the opinion of the author. 3d. The gradual abolition of alms-houses, houses of refuge, prisons, and penitentiaries. And a saving of enormous expenses attending those establishments. 4th. Additional security to property, and consequent reduction of premiums on insurance. 5th. Additional security to life, which cannot be represented by mere dollars and cents. 6th. A saving of much of the money and property now forcibly abstracted by larceny, buglary, fraud, &c.; as also most of that now destroyed by that terrible crime, arson. 7th. A further saving of all money now abstracted by beggars. 8th. A further saving of all the expenses of watching, arresting, keeping, and convicting this class of criminals. And, 9th, A moral elevation of their character, worth more than the total cost of the home. 10th. The institution will relieve us of this class, and pay all the expense. It is of universal application. I remain, dear sir, your much obliged and obedient servant,

W. H. HUTCHINGS.

* The Hon. James H. Caldwell has informed me that he was so firmly convinced of its practicability, utility, and necessity, that he would give 30 acres of land to the city in or near Bouligny for its use, whenever the city made suitable appropriations for the erection of the necessary buildings. This is practical benevolence of the highest order, yet only such as might have been expected from so pure a philanthropist.

NATIONAL AGRICULTURAL SOCIETY.

It affords us great pleasure to announce the formation of such a society in Washington city, under auspices which are likely to be successful. It has always been our desire to see the end accomplished, and we have on every proper occasion given it encouragement. At some personal sacrifices we endeavored to reach Washington to take part in the organization, as soon as the call of the Maryland and other societies was made public, and happily succeeded.

The first project of a national agricultural association was introduced by Solon Robinson, the well-known agricultural writer and editor, in 1841, and a meeting of the friends of the measure was held at the Patent Office, by the invitation of the commissioner, Mr. Ellsworth. Mr. Robinson was called to the chair, and J. F. Callan and John A. Smith, appointed secretaries. Several resolutions were adopted, and afterwards a constitution was framed, which we now have before us, resembling in many of its features the present constitution of the society. A large number of gentlemen from all parts of the United States were nominated upon the committees.

The revival of this useful project (1852) should be hailed by every true friend of agriculturein the Union. In inducing unity of action, it will develop great results. For the first time the agricultural interests will, as they should, be consolidated. It will be done, too, without the objectionable feature of an agricultural department of government. The necessity for such a department will be superceded by a national agricultural society. Such a society, through the state and county societies, can be made the great centre of agricultural knowledge. It can embody and condense the reports of constituent societies at home, as well as of all foreign societies, publishing them in serial volumes. It will be always completely informed of the agricultural movements in every part of the country, and possessed of its statistics. The expenses incurred may be made up from three sources—contributions of individual members, contributions from state societies, and special appropriations from government. These last may be better applied in this way, than as at present to the agricultural department of the Patent Office. They may be made to the Smithsonian Institute for the purpose, and the National Agricultural Society be attached to the same important institution, as recommended by us several years ago. We believe in this shape the measure is soon to be brought into Congress by General Rusk, of Texas, and that the small sum which is asked will meet with no objection.

The late meeting at Washington was attended by delegates from eleven or twelve states. The most distinguished agricultural gentlemen were present—among others, the Hon. Daniel Webster, Hon. T. J. Rusk, Hon. S. A. Douglas, Governor Steele, of New-Hampshire, &c., &c.

OFFICERS OF THE CONVENTION:

President.	H. K. Burgwyn, N. C.
Marshall P. Wilder, Mass.	T. J. Rusk, Texas.
Vice-Presidents.	J. D. Doty, Wis.
Henry Wagner, N. Y.	
Frederick Watts, Penn.	*Secretaries.*
Hunter, Penn.	Wm. S. King, R. I.
Chas. B. Calvert, Md.	B. F. Johnson, N. Y.
Geo. W. Nesmith, N. H.	J. D. B. De Bow, La.
John A. Throckmorton, Va.	J. A. Warder, Ohio.

PRESIDENT'S SPEECH.

"The occasion which has called us together is of a most important character, for it has for its object the advancement of an art coeval with the existence of the human race—an art which has sustained all past generations, from which we derive our daily food and our clothing, and which is destined through future ages to yield sustenance to the myriad millions who are to come after us—an art, too, which lies at the very foundation of individual and national wealth and prosperity—which employs eighteen millions of our population and nearly four-fifths of the capital of this fair land. We are an agricultural people—our habits and tastes are moral, and I hope we shall never cease to be such. Our country contains every variety of soil, and is capable of producing most of the agricultural products of the temperate and torrid zones. We have capital and population sufficient to develop our vast resources. American genius is adequate to any undertaking, and with a suitable application of science to this art, a wise division of labor, and proper governmental aid, there is no reason why American agriculture may not maintain a successful competition with that of any other country in the great markets of the world. The progress of agriculture in the United States has been comparatively slow; but I rejoice that a new era has commenced—that the good seed which was planted by the Father of his Country, and which has been watered by thousands of other eminent agriculturists, has at last taken root, and that in our day we are to realize the bright visions which ani-

mated their hopes. Much of this progress is the result of individual enterprise, and the labors of the agricultural press, but the mainspring has been voluntary association—the power which has achieved such wonders in the social, political, and religious world, in our day. These have opened the way for this convention. Individual enterprise can accomplish much, but associated efforts much more, and we meet to avail ourselves of its mighty influence. At no period in the history of our country has there been such an assembly collected for the purpose of considering those objects for which we are brought together, and there has been no opportunity which is so favorable to the interests of the farmer. Permit me, again, gentlemen, to tender you my thanks for the distinction you have conferred upon me, and to say that in the course of our deliberations I may, with your permission, participate in your debates."

COMMITTEE ON CONSTITUTION.

The committee was finally appointed, consisting of Messrs. Holkham, of Maryland; Douglas, Illinois; J. A. King, New-York; Mallory, Kentucky; Dawson, Georgia; French, Massachusetts; Steele, New-Hampshire; Thurston, Rhode Island; Hubbard, Connecticut; Stevens, Vermont; Flwyn, Pennsylvania; Calvert, Maryland; Campbell, Ohio; Hancock, New-Jersey; Callan, District of Columbia; G. W. P. Custis, Virginia; Burgwyn, North Carolina; Taylor, Alabama; De Bow, Louisiana; Spencer, Indiana; Bell, Tennessee; Weston, Wisconsin; Pickhard, Maine; John McLane, California; Seaman, Michigan; Rusk, Texas.

CONSTITUTION.

Sec. 1.—The name of this association shall be "The United States Agricultural Society."

MEMBERS—DUES.

Sec. 2.—The society shall consist of all such persons as shall signify to any officer of the society a wish to become a member, and who shall pay two dollars to the treasurer of the society, and a like sum annually thereafter; of delegates from the state agricultural societies in the states and territories and District of Columbia, who may be appointed to attend the annual and other meetings of the society, and who shall pay the like sum, and also of such honorary members as the society may seem fit to elect. Each member shall be entitled to receive a journal or publication of said society, containing an account of its proceedings, and such additional matter as shall be deemed worthy of publication, free from any expense except postage. Twenty-five dollars shall entitle one to the privilege of life membership and exempt him from any annual taxation.

OFFICERS.

Sec. 3.—The officers of this society shall be a President, a Vice-President, from each state and territory in the Union, and from the District of Columbia, a Treasurer, a Corresponding Secretary, a Recording Secretary, and a Board of Agriculture, to consist of three members from each state, territory, and the District of Columbia, to be appointed by the Executive Committee of the societies of such states, territories, &c., and where there be no such state societies, to be appointed by the Executive Committee of this society. The President of the society shall be *ex officio*, a member and President of this board and of the Executive Committee.

DUTIES OF OFFICERS.

The President shall have a general superintendence of all the affairs of the society. In case of his death or inability to discharge the functions of this office, the Board of Agriculture shall select a Vice-President to act in his stead, and clothed with the same power, and shall perform the same duties as the President until the next annual election.

Vice-Presidents.—It shall be their duty to advance all the objects of the association in their several districts; to explain to agriculturists the character and objects of this association, and endeavor to obtain their co-operation and support; to watch the advance of practical agriculture, and to make known the results of the same, by report or otherwise, from year to year.

Board of Agriculture.—It shall be the duty of this Board to watch the interests of agriculture, as they are or may be affected by the legislation of the country, and to make such reports, memorials, and recommendations as may advance the cause of agriculture, and to promote and diffuse agricultural knowledge; to examine, and, when necessary, report upon the practicability of establishing agricultural schools, colleges, and model farms; to set forth the advantages of agricultural and geological surveys, and to show the importance of the application of science to agriculture; to represent through their reports the relation of our agriculture to that of foreign countries, and to endeavor to obtain information from such countries; to point out the advantage of introducing any new staples, seeds, and plants; to obtain, so far as practicable, annual statistical returns of the condition of agriculture throughout the different states—all which information shall be published by said society, and form part of its transactions.

The Executive Committee shall transact the general business of the society; it shall consist of five persons, who shall designate the time and place for exhibitions, regulate the expenditures, and take such supervisory charge of the business of the society as may best promote its interests. This body shal

elect its own chairman. Three members shall constitute a quorum.

Treasurer.—The Treasurer shall keep an account of all moneys, and shall pay bills only after they have been audited by the Corresponding and Recording Secretaries, and a member of the Executive Committee, and countersigned by the President of the Society or the Chairman of the Executive Committee.

Corresponding Secretary.—The duty of this officer shall be to correspond with persons interested in agriculture; at each stated meeting he shall read such portions of his correspondence as may be of general interest; and it shall be his duty to carry out and advocate the views of the Board of Agriculture, in obtaining, arranging, and publishing any information they may desire to have laid before the agricultural community.

The Recording Secretary shall keep a record of the minutes of the society, and of its Executive Committee.

Sec. 4.—The annual meetings of the society shall be held at the city of Washington, on the first Wednesday of February in each year, when all the officers of the society for the ensuing year, shall be elected by ballot. The Executive Committee, however, shall be competent, with the approbation of the society, to appoint occasional meetings to be held at other points. Fifteen members shall constitute a quorum for business.

Sec. 5.—This constitution may be altered at any annual meeting by a vote of two-thirds in attendance, provided not less than fifty be present.

OFFICERS OF THE SOCIETY—1852-3.

President—Marshall P. Wilder, Mass.

Vice-Presidents—Ezekiel Howe, Maine; George W. Nesmith, New-Hampshire; Henry Stevens, Barnet, Vt.; B. V. French, Mass.; Jonah Chapin, R. I.; S. D. Hubbard, Conn.; Henry Wagner, N. Y.; Thomas Hancock, N. J.; Frederick Watts, Penn.; Peter F. Causey, Del.; W. D. Bowie, Md.; George W. P. Custis, Va.; H. K. Burgwyn, N. C.; Thomas Witherspoon, N. C.; Thos. Stocks, Ga.; R. Jones, Ala.; Alex. H. Begens, Mass.; A. B. Roman, La.; F. Kinsman, Ohio; R. Mallory, Ky.; Dr. J. Shelby, Tenn.; John L. Robinson, Indiana; S. A. Douglas, Ill.; David R. Atchinson, Missouri; T. B. Flournoy, Ark.; James L. Congar, Mich.; Dr. Simmons Baker, Florida; T. A. Rusk, Texas; W. F. Coolbaugh, Iowa; James D. Doty, Wis.; Lilburn W. Boggs, Cal.; J. F. Callan, District of Columbia; S. M. Baird, New-Mexico; Alexander Ramsay, Minnesota; Joseph Lane, Oregon; Joseph L. Hayes, Utah.

Executive Committee.—C. B. Calvert, M. D., Maryland; J. A. King, N. York; Dr. A. L. Elwyn, Penn.; W. B. Newton Virg.; J. D. Weston, Wisconsin.

Recording Secretary.—R. C. Walker.

Treasurer.—William Selden.

Cor. Secretary.—Daniel Lee.

We trust that all persons in the country, friendly to this society, will address Dr. Lee, at Washington, a gentleman long known to the agriculturists from his connection with the "Genesee Farmer," published in New-York, as also with the Georgia Cultivator, of more recent date. He is an able and intelligent gentleman, and has been an active mover in the present organization. We shall also be happy to receive contributions upon the subject ourselves, and shall always aim to make the Review one of the organs of this as of all other great industrial movements.

After the adjournment of the Convention the Executive Committee had a meeting, in which it was resolved to publish, in pamphlet form, the proceedings, together with an abstract of the agricultural statistics of the United States, furnished through the courtesy and enlightened public spirit of Mr. Kennedy, the intelligent head of the census department.

SOME EDITORIAL NOTES.

A bill has passed one of the houses of Congress, appropriating $75,000 towards removing the obstructions at the mouth of the Mississippi. This is a measure of obvious interest to the whole country, and has been recommended to the attention of government for many years. The committee of the New-Orleans Chamber of Commerce are now in Washington pressing the matter. Mr. Soulé, who has had charge of the bill, has been energetic and sleepless from the beginning. The subject of a Navy Yard at New-Orleans continues to attract attention; and it happened to us to be present when a committee of our citizens, in strong and becoming terms, presented the subject to the notice of the President, and received from him a promise of attention. The Secretary of War, Mr. Conrad, and the whole Louisiana delegation were present, endorsing and advocating, as good citizens and legislators they should, the measure.

The tax of $3,500,000 for rail-road purposes has been voted by the property holders of New-Orleans by an overwhelming and almost unprecedented majority. Was ever revolution so extraordinary effected in so short a time? and was ever hope brighter for the future of any city? We retract everything we have ever said against the enterprise of New-Orleans. Its citizens have taken a new departure. With the will, and the financial means, the rail-roads to Nashville, to the month of the Ohio, and to the Trinity in Texas, may be regarded as fixed facts. Already we hear the whistle of the locomotive.

A bill has lately passed the United States House of Representatives donating to the old states 150,000 acres of land to each congressional district, and to the new states amounts varying from one to two millions of acres for rail-road purposes, &c. This will

be a great aid to the states of Louisiana and Mississippi in their present enterprises, as well as to the other states of the south-west. Hard upon the heels of this bill comes another from Mr. Rusk in the Senate, appropriating a breadth of sixty miles of land for the construction of a road to the Pacific, terminating on the Mississippi not north of Memphis, and crossing at El Paso. A provision is made in the bill for a Missouri branch. This bill or a similar one, or Mr. Whitney's, it is thought will pass during the present Congress. The time has certainly come for action, and we unhesitatingly give our support to either. After years of probation and herculean labor, Mr. Whitney will yet live to see achieved his great idea.

Memucan Hunt, of Texas, is now at the North organizing a company for the construction of the Central Rail-road from Galveston to Red River; a work eminently deserving the attention of the people of that state. We cannot learn if any action is being taken under the charter from the Sabine to the Trinity.

GAYARRE'S HISTORY OF LOUISIANA.

We have had the pleasure of perusing some of the sheets of the second volume of this work, which is based upon the documents lately obtained from Spain, and furnishes the first full and reliable history of the Spanish dominion in Louisiana. In our next number we shall discuss the volume at large, and make some most interesting extracts. A sense of justice to Mr. Gayarre compels us to make one or two notes here, however, upon an article which lately appeared in the Literary Messenger, at Richmond. The first manuscripts obtained from France were a compilation by Mr. Magne, and were purchased by Gov. Mouton for $1,000, at the recommendation of Mr. Gayarre. On the same recommendation and application, and by the exertion of personal influence, the legislature was induced to copy the Spanish papers. We desire that Mr. Gayarre should have the merit to which he is eminently entitled, and which in the Richmond article he does not receive.

NEW EDITION OF THE REVIEW.

We beg our friends to send on their orders for the condensed edition of the Review, the prospectus of which appears in another column. It will be published in the time indicated, and we are incurring large expense in the confidence that our efforts will meet with a liberal support. The work will be valuable in every section of the Republic, and will be a cheap addition to the standard libraries of every citizen. We trust that all of our subscribers who have not preserved or obtained the back numbers will order the new edition. We have still a few complete sets, in 12 volumes, of the old edition for those who prefer them; and we can supply the back numbers to make up sets when desired, and will have them bound at low rates. Every subscriber should preserve and bind his numbers.

LATE PUBLICATIONS.

1. *The Life and Letters of Barthold George Niebuhr*; with Essays on his Character and Influence. By the Chevalier Bunsen, and Professors Brandis and Loebell. Harper & Brothers New-York. J. C. Morgan, New-Orleans. Pp. 563.

The present publication is mainly a translation from a large German work, entitled "Lebensnachrichten uber Barthold George Nebuhr," which was written chiefly by Madame Hensler, the sister-in-law of this distinguished scholar and historiographer. Those who cannot read the original will find here a store of rich and valuable information, such as the memoirs of few men supply, upon subjects of the highest practical utility and importance. The life of such a man as was Niebuhr, could not be otherwise than interesting to all who love to contemplate humanity in its highest state of development, and under aspects in which it is exhibited to excellent advantage.

The larger portion of the book is taken up with letters written by the subject of the biography, only so much text being added as was found necessary to unite these into one complete and perfectly intelligible whole. "The aim of the work," says Madame Hensler, "is simply biographical; to communicate whatever can throw light upon his (Niebuhr's) natural capacities and disposition, his mental development, his studies, his mode of thought, his views of life, the state of art and literature; his relations as a citizen, a friend, and a member of the domestic circle; his large and profound sympathies; his keen sense of the noble and beautiful; his zeal for justice and truth; and, not less, his faults and weaknesses; for these, too, neither ought nor needed to be glossed over."

Only about half of the letters given in the "Lebensnachrichten" have been translated, and presented to us in this volume, none of those written on learned subjects being inserted.

2. *Cosmos:* A Sketch of a Physical Description of the Universe. By Alexander Von Humboldt. Vol. IV. New-York: Harper & Brothers. J. C. Morgan, New-Orleans. Pp. 230.

Alexander Von Humboldt is well known among the reading community as one of the most distinguished scholars of the present age. His Cosmos has been received by the scientific world with the highest commendation, for its completeness, accuracy, and

well-digested views of the topics on which it treats. The Universe, in its physical aspects, is the grand subject which here engages the pen of one of the most noted of scientific travelers. Humboldt is now more than eighty years of age, yet his mental powers remain as vigorous as ever. Whatever topic he treats, he pours upon it from the rich storehouse of his mind a copious flood of light.

The translation from the original German is executed by E. C. Otte and B. H. Paul, as was that of the former volumes of the Cosmos, issued by the Harpers.

3. *The Life and Works of Robert Burns.* Edited by Robert Chambers. Vol. II. Harper & Brothers: New-York. New-Orleans: J. C. Morgan. Pp. 317.

Others have written memoirs of the "sweet poet of nature," but none upon the plan here followed. The works and life are here intermingled in such a way, that the one is made a complement of the other. The poems are given in chronological order, the circumstances under which they were written being fully detailed, in close connection, in the accompanying life and letters of the poet. In this way, the history both of the poet and of the man is carried on simultaneously, the outward and the inward being bleaded, so as to form a complete representation. Each part throws a light upon the other, without which each would be destitute of half of its life and interest.

The preceding volume commences with the birth of the poet; two more are yet to appear before the assigned limit of the whole work will have been reached. The work, we think, will be received with favor by the reading public, especially by such as admire the simplicity of Burns' style of writing, and its adherence to the natural and unaffected in composition. Some of his lyrics cannot be surpassed in the English language.

SOUTHERN PUBLICATIONS.

Efforts are now being made to establish, in the South, a large publication house, something after the fashion of those of the Harpers' and the Appletons' of the North, but mainly devoted to the encouragement of southern authors, and the dissemination of southern books. It becomes us to consider whether this is not at least as important as the movements in favor of southern industrial advancement and progress, which are every where waking up our people into action. One or two establishments, such as we have alluded to, at the South, would have existed long ago, had an enlightened appreciation of interest been allowed to govern.

The publication house, to which we refer, is that of Walker, Richards & Co., of Charleston. These gentlemen have taken extensive quarters, which are to be still further improved and enlarged, and are preparing, with the most extensive machinery, to conduct all the operations of printing, press-work, stereotyping and binding, in a style altogether equal to any thing at the North, and upon terms equally advantageous. The works which they have already issued are Pickett's History of Alabama, Mackey's Lexicon of Free Masonry, Wellington's Summer in Europe, Simms' Golden Christmas, Mrs. Gilman's Southern Matron, Simms' Wigwam and Cabin, 2 vols., etc. The three last constitute the opening numbers of a series entitled *Popular Southern Books*, which it is intended to continue at brief intervals, in handsome style, and at low prices. Messrs. Walker & Co. are also the publishers of the Southern Quarterly Review, the Charleston Medical Journal, the Southern Literary Gazette, and the Schoolfellow periodicals, which have gained a large circulation among us. We can only give a brief notice now, of some of their publications.

1. *Mackey's Lexicon of Free Masonry.* This is a second edition, greatly enlarged and improved. It embraces a full history of the order, definition of its terms, its rites and mysteries, etc., etc. Dr. Mackey is Grand Secretary, and Lecturer of the Grand Lodge of South Carolina, Secretary General of the Supreme Council for the South, with several other D. G., H. P.'s, &c., which, not being of the initiated, we cannot be expected to understand. Such a work has hitherto been unknown in the language. We recommend it to the attention of the order everywhere.

2. *Recollections of a Southern Matron.* By Caroline Gilman. A beautiful story of southern life and manners, which has had popularity for many years, and which loses nothing of interest by time.

3. *The Golden Christmas.* By Simms. A lively and spirited tale, in the best style of the author.

4. *The Wigwam and the Cabin;* or Tales of the South. First and second series. We have read the sketches in these series with the keenest interest and relish. They depict southern life with a free and skilful hand; and the pictures of every day life on the plantations are altogether unrivaled. Here we see the negro, the driver, the overseer, and the master, as they are, and hear them speak in their own language. There is no straining after effect. Among the very finest pieces, we would mention the "Lazy Crow;" "Lucas de Aylon;" and "Grayling; or Murder Will Out." There is nothing in southern literature which surpasses them in interest and in merit, and they are of a character to put Mr. Simms in that peculiar line among the very first of American writers. Though a southern writer, Mr. Simms is perhaps more known at the North than at home. This is wrong, and should be corrected; and in order to assist, we intend before long to furnish our readers a brief biography of the man, together with a sketch of his literary labors for the last twenty years.

THE MEDICAL COLLEGE OF THE UNIVERSITY OF LOUISIANA.

It is our design at all times to notice the prominent educational institutions throughout the southern and western states, and we know of none which sustains a higher character than the medical school of Louisiana. The catalogue before us gives 186 matriculants in 1851-'52, and the wood-cut which we insert on another page gives a fair idea of the grounds and buildings. The regular course of lectures begins on Monday, 15th November, 1852, and terminates in March, 1853. More than 1,500 names are now upon the list of matriculants, and many of the graduates have acquired honorable distinction in physic and surgery. It is no small indication of the confidence of the medical profession, throughout the country, in the institution that its classes are so well attended, a confidence which the State of Louisiana has reciprocated by a most liberal endowment, as will be seen in the act we copy below.

ADMINISTRATORS OF THE UNIVERSITY OF LOUISIANA.

Ex-officio.—Hon. JOSEPH WALKER, *Governor of the State of Louisiana.*

Hon. GEORGE EUSTIS, *Chief Justice of the Supreme Court.*

Hon. A. D. CROSSMAN, *Mayor of the City of New-Orleans.*

Hon. J. Walker,
" Maunsel White,
" R. C. Nicholas,
" Judge I. T. Preston,
" I. Labatut, M. D.,
Levi Pierce, Esq.,
M. M. Cohen, Esq.,
W. C. Micou, Esq.,
James Robb, Esq.,

Hon. THEODORE H. MCCALEB, *President of the University.*

MEDICAL FACULTY.

JAMES JONES, M. D., *Professor of the Theory and Practice of Medicine.*

WARREN STONE, M. D., *Professor of Surgery.*

J. L. RIDDLE, M. D., *Professor of Chemistry.*

A. H. CENAS, M. D., *Professor of Obstetrics, and of the Diseases of Women and Children.*

A. J. WEDDERBURN, M. D., *Professor of Anatomy.*

GUSTAVUS A. NOTT, M. D., *Professor of Materia Medica and Therapeutics.*

THOMAS HUNT, M. D., *Professor of Physiology and Pathology.*

ACT FOR THE ADVANCEMENT OF MEDICAL EDUCATION.

"SECTION 1. *Be it enacted by the Senate and House of Representatives of the State of Louisiana, in General Assembly convened,* That the sum of twenty-five thousand dollars be and the same is hereby appropriated for the purchase of—1st. Anatomical preparations, illustrative of human and comparative anatomy and anatomical paintings, plates and drawings. 2d. Surgical preparations, illustrative of disease, and surgical paintings, plates, drawings and instruments. 3d. Medical preparations, illustrative of disease, and medical paintings, plates and drawings. 4th. Obstetrical preparations, illustrative of the science of obstetrics, and paintings, plates and drawings, illustrative of diseases of women and children. 5th. Physiological preparations and apparatus, illustrative of the science of physiology. 6th. Preparations illustrative of general and special Pathology, paintings, plates and drawings. 7th. Pharmaceutical apparatus and preparations, illustrative of Materia Medica, and mineral and botanical preparations. 8th. Chemical and philosophical apparatus, illustrative of the science of chemistry, for the use of the Medical Department of the University of Louisiana."

All the objects contemplated in this Act will have been carried out and fulfilled by the commencement of the ensuing session of the school in November. To the agent of the state, Dr. Wedderburn, aided by his colleague, Dr. Cenas, the faculty and the public are much indebted for the prompt, faithful, and able manner in which they have discharged the responsible duties assigned them. The college has been fostered by the liberal acts of successive legislatures, and its usefulness has been extended by judicious appropriations to render complete in every department of medicine the means requisite to facilitate instruction in demonstrative and experimental science.

The Museum of Anatomy is very extensive, and a great many of the preparations are works of the most scientific artists in England, France and Italy. In Human and Comparative Anatomy, there are—1st. An entire collection of muscular preparations, from the Academy of Anatomy at Florence. They represent more than 350 separate dissections. 2d. Thibert's collection, representing the microscopic anatomy of the tissues. 3d. Auzoux' valuable cabinet of Human and Comparative Anatomy. 4th. A complete cabinet of human bones, and an admirable collection in comparative Osteology. 5th. Preparations in wax—exhibiting exquisite skill in art, and knowledge in science, representing the anatomy of the

UNIVERSITY OF LOUISIANA, NEW-ORLEANS.

The centre is occupied by the Medical Department. Its dimensions are 100 feet front, by 104 in depth. It contains three large Lecture Rooms, each of which will accomodate more than 600 persons—a large Museum, Dissecting Rooms, etc.

viscera—of the nervous and vascular systems, and of every organ in the human body. The Pathological department is enriched by a very large collection of models from England and France, which represent diseases of the eye, and diseases of the skin. There is also a great number of specimens of the urinary and biliary calculi, many of which were obtained from Dupuytren's Museum at Paris, and many, very valuable, from the College of Surgeons, London. The rest are contributions from amongst ourselves. The models of the diseases of the skin were made by Mr. Towne, of Guy's Hospital, London. They are perfect, and each disease can be studied with their aid, as well as in nature. No other museum in the world contains these models except that of Guy's Hospital. Besides the magnificent collections purchased in Europe, the museum contains numerous anatomical preparations, made by members of the faculty, and others presented by their scientific brethren. The Pathological collection of bones is excellent, and was obtained chiefly through the labors of the faculty. The specimens of Pathological Anatomy are numerous and interesting. Every day this department is rendered more useful by additions derived from the enlightened friends of the Institution.

We extract the following in regard to CLINICAL INSTRUCTION, from the report of the Board of Administrators of the Charity Hospital.

To the Hon. Senate and House of Representatives of the State of Louisiana:

"It will appear from the accompanying document that, in the year,"

The number of patients admitted was....18,476
Do. do. discharged was...15,989
Do. do. died..... 1,884

"This institution, the largest hospital for the reception and treatment of patients in America, presents an admirable field for the study of disease, and it is a valuable acquisition to our medical college, the professors in which are allowed every facility they desire during the course of lectures. We have ten resident students in the Hospital, who are furnished board and lodging, and are required to execute the orders of the visiting physicians and surgeons. We venture to assert, that those of them who remain their full period of two years, go forth with a better stock of practical knowledge and experience than any young physicians in the country."

The number of medical cases treated during the last year in the Hospital was about 16,000, and the surgical patients numbered nearly 2,500.

The college affords opportunities to the student unsurpassed, we believe, by any other institution in the world. The Act which established the University of Louisiana, gave the Professors of the Medical Department the use of the Charity Hospital as a school of practical instruction; and it is during the session of the school therefore in charge of the professors. There are about 1000 cases usually in the wards of the Charity Hospital. The professors visit every morning, between 8 and 10 o'clock, the Medical, Surgical, and Obstetrical wards. Hence a wide field is open for the practical study of diseases and their scientific treatment. Members of the classes of the Medical Department have *gratuitous* and *free* admission to the wards of the Hospital; they are also permitted to attend post-mortem examinations, which are incomparably greater in number here than in any other school in America or in Europe. Indeed, elsewhere, a class seldom sees an autopsy except during a lecture. Attendance on cases of labor in the Obstetrical ward is provided by the Professor of Obstetrics, from among the candidates for graduation. The Professor of Surgery performs all operations and dressings in presence of the students, in the amphitheatre of the hospital. Lectures are delivered on Wednesday and Saturday of every week, on Clinical Medicine and Surgery, and on Special Pathological Anatomy.

LECTURES.

1. The Professor of Anatomy lectures on five days of every week during the session. 2. The Professor of Physiology and Pathology lectures on five days of every week. 3. The Professor of the Theory and Practice of Medicine lectures on six days of every week. 4. The Professor of Surgery lectures on six days of every week. 5. The Professor of Obstetrics lectures on four days of every week. 6. The Professor of Materia Medica and Therapeutics lectures on four days of every week. 1. The Professor of Chemistry lectures on four days of every week. To aid in their courses of instruction the professors have every thing deemed necessary for teaching the various branches of medical science, viz: 1. Chemical and philosophical apparatus, of modern style. 2. Specimens of Materia Medica and chemical products, from Verron and Fontain, of Paris, on a plan of the College of Pharmacy, of Paris. 3. Surgical instruments, from Charrière, a complete set. 4. Paintings, plates, models, drawings, books, and special apparatus. The faculty supply almost gratuitously (i. e. at a less cost than even in Paris) subjects for dissection. The supply

always exceeds the demand of the class. But, above all these advantages, from its local position, the Medical college of Louisiana affords to the student means and opportunities of acquiring information in regard to the causes, nature and treatment of the diseases peculiar to our climate, which he cannot obtain in any northern, southern or western college in our country.

The candidate for the degree of Doctor of Medicine must be—1. Twenty-one years of age, of moral character, and must have studied medicine three years. 2. He must have attended two full courses of lectures—the last of which must have been in this institution. 3. He must write a Thesis on a medical subject, and present it to the Dean, one month before the close of the session. 4. He must be examined by the faculty. The department of Practical Anatomy is under the control of the Professor of Anatomy. The room for practical anatomy will be open from the third Monday in October to the 1st of April. The dissecting rooms are open during the whole day, from 7 A. M. to 10 P. M.; it is the duty of the Demonstrator to be constantly in attendance for the purpose of instructing the students dissecting.

The following are the terms, as published in the circular of Dr. Thomas Hunt, Dean of the Faculty.

For the ticket of each Professor.....$15 00
For the ticket of Practical Anatomy... 10 00
Matriculation fees..... 5 00
Diploma fees..... 30 00

☞ Fees for tickets required in advance.

Boarding for students is as cheap in New-Orleans as in any other large city in the Union.

Graduates of all respectable schools will be admitted to the course without charge.

Students who desire further information will address themselves to the Dean.

DISEASES OF THE CHARITY HOSPITAL, NEW-ORLEANS, FOR THE YEAR 1851.

We annex the following statistical memoranda of the diseases treated in the hospital during last year, as a matter of general interest, worthy of preservation. The student of medicine will perceive there are few of the "ills which flesh is heir to" not included in the catalogue. Total number of cases, 18,403, including 84 negroes.

Abscess, 115; Abscess-mammary, 6; Abscess parotid gland, 1; Abscess psoas, 1; Abscess liver, 4; Amygdalitis, 2; Anasarca, 30; Abortion, 6; Ascites, 38; Arthritis, 15; Apoplexy, 19; Albuminaria, 6; Amputation of finger, 4; Amputation of leg, 2; Amputation of thigh, 2; Amputation of arm, 1; Amputation of toe, 1; Amputation of foot, 1; Amputation of hand, 1; Age (old) 1; Aneurism, 1; Aneurism abdominal aorta, 1; Aneurism external iliac 1; Anæmia, 26; Asthma, 4; Adenitis, 1; Aphonia, 2; Amenorrhea, 11; Anchylosis, 1; Amaurosis, 3; Ani prolapsus, 1; Arachnitis, 2; Asphyxia, 1; Bronchitis, 169; Burn, 24; Blepharitis, 17; Blepharo-conjunctivitis, 14; Bubo-sympathetic, 5; Cholera, Asiatic, 322; Cholera morbus, 3; Cholera infantum, 2; Contusions, 279; Cæcitis, 8; Conjunctivitis, 37; Conjunctivo-keratitis, 1; Catarrhus, 47; Cephalagia, 22; Constipation, 92; Chilblains, 1; Cardialgia, 1; Colica pictonum, 72; Colica bilioso, 17; Colica convulsiva, 1; Chills, congestive, 2; Congestion of brain, 19; Congestion of liver, 1; Concussion of brain, 3; Chlorosis, 3; Cirrhosis of liver, 1; Cephalitic congestion, 1; Cystitis, 5; Cancer, 12; Cataract, 3; Cough, hooping, 2; Carbuncle, 12; Cancrum oris, 1; Caries, 3; Convulsions, 9; Convulsions, puerperal, 1; Croup, 1; Cerebritis, 6; Comata, 1; Diarrhea, 811; Dysentery, 490; Debility, 402; Delirium tremens, 198; Dropsy, 38; Deafness, 1; Dementia, 6; Dyspepsia, 15; Dysmenorrhæa, 3; Diathesis, scrofulous, 1; Dislocation of thigh, 1; Enteritis, 83; Etero colitis, 11; Endocarditis, 7; Epidiymitis, 1; Endo-pericarditis, 2; Epilepsy, 12; Encephalitis, 2; Enlargement of tonsils, 1; Enlargement of spleen, 2; Erysipelas, 54; Erysipelas gangrenous, 1; Enteralgia, 8; Epistaxis, 1; Exostosis, 1; Ecthyma syphilitica, 9; Eczema, 11; Erythema, 1; Ecchymosis of the eye, 1; Emesis, 4; Eruption vesicular, 1; Elephanthiasis, 1; Fever, intermittent, 6871; Fever, pernicious int., 37; Fever, remittent, 2366; Fever, malignant remit., 4; Fever, sun, 4; Fever, adynamic, 1; Fever, congestive, 85; Fever, typhus, 1301; Fever typhoid, 271; Fever, ephemeral, 62; Fever, bilious, 82; Fever, continued, 104; Fever, yellow, 7; Fever, algide, 1; Fever, dengue, 2; Fever, scarlatina, 2; Fever, puerperal, 1; Fracture of leg, 25; Fracture of arm, 11; Fracture of fore arm, 9; Fracture of clavicle, 27; Fracture of skull, 7; Fracture of ankles, 1; Fracture of condyles of femur, 1; Fracture of spine, 1; Fracture of hip, 1; Fracture of head of femur, 2; Fracture of thigh, 15; Fracture of metacarpal bones, 2; Fracture of the thumb, 2, Fracture of maxilary bone, 2; Fracture of olicranon, 1; Fracture of ribs, 2; Fracture of patella, 1; Fistula in ano, 12; Fistula perinæum, 1; Fistula recto vaginalis, 1; Furunculi, 19; Gastritis, 52; Gastro-enteritis, 36; Gastro-dudoenitis, 1; Gastric disorder, 11; Gravel, 2; Gonorrhea, 107; Gastralgia, 22; Gastrodynia, 1; Gangrena, 4; Gangrena of lungs, 4; Hepatitis, 51; Hemorrhoids, 26; Hysteritis, 6; Hysteria, 15; Hydrops articuli, 1; Hemiphlegia, 4; Hernia, 9; Hysteralgia, 1; Hæmorrhage, 7; Heart, disease of, 43; Hydrocele, 4; Hydro-cephalus, 1; Hydro-thorax, 3; Hydro-pneumothorax, 1; Hydartrosis, 2; Hemicrania, 24; Hemeralopia, 2; Hypertrophy of liver, 1; Herpes, 5; Hematemesis, 1; Hermaphrodite, 1; Injury of spine, 9; Injury of thigh, with laceration of soft parts, 1; Intemperance, 44; Inflammation of Inguinal gland, 2; Inflammation of scrotum, 1; Insanity, 4; Iritis, 3; Ileus, 1; Impetigo, 2; Impetigo eczematodes, 1; Inanition 1; Incontinence of urine, 1; Jaundice, 21; Keratitis, 22; Kerato iritis, 2; Kerato conjunctivitis, 13; Laryngitis, 3; Leucorrhæa, 9; Lumbago, 8; Lupus syphilitica, 3; Luxation of shoulder, 7; Luxa-

tion of ulna, 1; Luxation of knee, 1; Luxation of clavicle, 1; Luxation of humerus, 5; Luxation of thigh, 2; Luxation of astragalus, 1; Luxation of head of os femori on dorsum of ilium, 1; Lefra, 1; Meningitis, 7; Meningitis cerebral spinal, 3; Metritis, 5; Melancholia, 3; Mania, 10; Mania a potu, 16; Mania puerperal, 1; Monomania, 5: Menorrhagia, 1: Measles, 1: Metrorhagia, 1: Marasmus, 13: Neuralgia, 17: Nephritis, 2: Necrosis, 13: Nebula, 3: Orchitis, 28: Œdema, 46: Œdema glottidis, 2: Opthalmia, 39: Otorrhœa, 1: Ostalgia, 1: Odontalgia, 1: Osteitis, 1: Otitis, 1: Osteo-sarcoma, 1: Opacity of cornea, 3: Pregnancy, 192: Parturition, 2: Pleurodinia, 3: Phthisis, 402: Phthisis Laryngia, 3: Placenta, retroversion of, 1: Pleuritis, 61: Paronychia, 17: Phrenitis, 1: Paralysis, 29: Parotitis, 9: Prostatis, 1: Phelmasia dolens, 1: Pneumonia, 58; Pneumonia typhoid, 4: Pleuro-pneumonia, 9: Peri-pneumonia, 1: Pericarditis, 3: Paraplegia, 1: Phymosis, 1: Paraphymosis, 2: Pruritus vulvæ, 1: Peritonitis, 4: Peritonitis puerperal, 2: Periostitis, 2: Ptyalismus, 18: Pulmonary congestive, 1: Psoriasis, 4: Phlegmon, 4: Pertusis, 1: Prurigo, 1: Rheumatism, 358: Retenitis, 1: Retention of urine, 1: Syphilis, 401: Syphilides, 1: Synovia, 5: Scabies, 4: Siatica, 3: Sprain, 35: Stricture of urethra, 14: Sarcocele, 1: Scald, 44: Singultus, 1: Splenitis, 2: Stomatitis, 1: Spermatorrhœa, 1: Softening of spinal cord, 1: Softening of brain, 3: Sunstroke, 25: Suppuration of parotid gland, 1: Suppression of urine, 5: Scrofula, 21: Scurvy, 7: Surditas, 1: Staphyloma, 1: Suicide by laudanum, 1: Tetanus idiopatic, 7: Tetanus traumatic, 5: Tetanus lateralis, 1: Trismus, nascentium, 3: Tinea capitis, 1: Tabes mesenterica, 3: Tonsilitis, 7: Torticolis, 1: Tumor, 4: Tumor, ovarium, 2: Tumor febris of upper jaw, 1: Tumor malignant of face, 1: Temulentia, 28: Ulcer, 421: Urticaria, 2: Uteri prolapsus, 7: Uteri retroversis, 1: Unknown diseases, 20: Variola confluens, 35: Varicloid, 3: Vaginitis, 1: Vertigo, 1: Wound, incised, 47: Wound, lacerated, 28: Wound, punctured, 28: Wound, penetrating 5: Wound, gun-shot, 15.

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